

**“Into Something Beyond”:
Post-Apocalyptic Narrative, Anthropogenic Climate Change,
and the Nonhuman Posthuman**

by

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Dedication

For the *Hepatica* and *Trientalis borealis*, the maples and ironwood and river otters, the loons and broad-winged hawks and all the nonhumans who surrounded me at the cabin on the Flambeau where much of this dissertation was written. I have tried to do right by you all. I have surely failed. Might we make of it a beginning?

For my niece Addison, who may not have a choice in the matter. Here are possibilities—some marginally but none entirely monstrous.

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“On the Other Side of Time”: Introducing a New Genre for the End of the World

[I]t's become easier to imagine the end
of the world than the end of capitalism.
~ Fredric Jameson¹

[M]an is an invention of recent date.
And one perhaps nearing its end.
~ Michel Foucault²

I was reminded many times while drafting this project of a passage from one of my favorite science fiction novels, China Miéville's *Embassytown*. The scene is a social gathering within the atmospherically-controlled human settlement of a remote planet which is home to the Ariekei. This species is notable for their extreme physiological and linguistic differences from humans (in fact, the plot hinges on the fact that the Ariekei, or Hosts, have no conception of symbolic language and are unable to lie or even describe things that have never happened). The human colonists are accustomed to the Hosts' physical appearance, but the pilot and crew of the recently arrived supply ship are not. As the Hosts enter the room, the protagonist notes their reaction:

The partygoers tried not to be rude—as if it were possible for us to be rude to them, as if the Hosts considered politesse on axes that would make any sense to us. Nonetheless, most of us kept up our chitchat and did not ogle. An exception was the crew, who stared frankly at the Ariekei they had never seen before. Across the room I saw my helmsman and I saw the expression on his face. [...] no matter how travelled people are, no matter how cosmopolitan, how biotically miscegenated their homes, they can't be insouciant at the first sight of any exot race. The theory is that we're hardwired with the Terre biome, that every glimpse of anything not descended from that original backwater home, our bodies know we should not ever see.³

¹ Jameson, *The Seeds of Time*, xii

² Foucault, *The Order of Things*, 387

³ Miéville, *Embassytown*, 65

Miéville has, I think, identified something very important about human neurology. But I don't believe that humans need to travel across galaxies and encounter alien species to experience the shock, revulsion, disgust, and alarm I envision on the helmsman's face. My research for this project has brought me "face to face," as it were, with our resistance to other lifeforms and intelligences—lifeforms and intelligences right here among us, some of them living on our bodies and even in our blood and guts.

Consequently, I've long been fascinated by creatures who resist easy anthropomorphism: sea otters who rape baby seals, often to death; plants whose reproductive recombinations confound (or pervert) all analogies to human sexual dimorphism; bacteria who reproduce asexually but pass genetic information through tubules in a process we have, for some unfortunate reason, dubbed "conjugation."⁴ We are hardwired to anthropomorphize, and anything that resists that instinct is disgusting or distressing, often triggering those other oft-cited innate instincts: fight or flight. Our collective antipathy towards—and often downright incomprehension of—lifeforms which fall outside the boundaries of charismatic megafauna is, in my opinion, unique among the inhabitants of this planet. Most species do not suffer this sort of predilection. They do not delimit their interests and interactions to species with similar manners and morphologies. Plants in the wild are often much closer and more intimately networked to their immediate neighbors of other species than to members of their own. Their existence usually depends greatly upon their ability to relate to other species. Many mammals are highly territorial and solitary, interacting far more, aside from short periods for reproduction, with other members

⁴ Harris et al., "Lesions and Behavior Associated with Forced Copulation of Juvenile Pacific Harbor Seals (*Phoca Vitulina* Richardsi) by Southern Sea Otters (*Enhydra Lutris Nereis*)", Darwin, *The Loves of the Plants*, , "Bacteria - Exchange of Genetic Information", "Conjugation" alludes, of course, to human marital objects and customs: "conjugal bed," "conjugal rites." In this case the analogy is particularly inaccurate. The practice, among individual asexual bacteria, would be more akin to exchanging acquired knowledge, a hand-off of particularly timely "life hacks": "You know that new antibiotic we're getting exposed to? I'm using this protein for my cell wall. Give it a try!" The problem isn't necessarily the analogies themselves, but the coarsening and human-centering they often effect.

of the biome than their own species. Alas, whatever the source, humans (or at least humans without biology degrees) generally struggle to comprehend and care about organisms that cannot, by some stretch of imagination, be seen to smile.

I am asking my readers, then, to do something extremely difficult—even impossible. I am asking them not only to open their minds to nonhuman otherness, but to imagine entire worlds of nonhuman otherness and accommodate ethical frameworks which consider or aspire to such worlds. In this text I will treat the prospect of a future nonhuman Earth with absolute sincerity. I will speak of that future world as what I understand it to be: an eventuality. Fortunately, I am not alone in my imaginings. This future world that the humanities has struggled for decades to imagine, much less embrace, is roundly depicted and at times celebrated in the creative archive of poetry, fiction, and film I will explore. These works are, by and large, not humanitarian. They are humanist only in the sense that they see the potential for humans to become something better—by acquiescing to other forces and, usually, becoming something else entirely.

I know how difficult it is for humans, much less humanist scholars, to consider this future and I would not ask readers to engage with such openness, and think on such inhuman time scales, if I did not believe it deathly important to do so. As I write this in the fall of 2021, the most recent report from the International Panel on Climate Change asserts that many changes brought on by global warming, such as intense rainfall events, forest fires, and sea rise, are now irreversible. Along with continued efforts to keep global warming at or below 1.5 degrees, the IPCC now recommends “climate adaptation,” suggesting that nations invest in palliative measures such as early warning systems for floods and tsunamis.⁵ The IPCC’s term “climate adaptation” unintentionally evokes the kinds of biological alterations climate change might

⁵ , “‘Code Red’ for Human Driven Global Heating, Warns UN Chief.”

trigger in humans: because we have so profoundly changed this world, there is a very high likelihood that we humans will, in the not too distant future, be compensatorily changed. It is time to look earnestly and openly at that eventuality. As the character Gloria writes in *Acceptance*, the last book of Jeff VanderMeer's *Southern Reach Trilogy*, "[t]he world we are a part of now is difficult to accept, unimaginably difficult. I don't know if I can accept everything even now. But acceptance moves past denial, and maybe there's defiance in that, too."⁶ Surrender, resistance, call it what you will: it is time to move past denial. This archive, works of what I am calling end of the world dystopia, can show the way.

This project advances a three-part argument. First, I make a high-level assertion that nonhumans and the alterity of nonhuman existence present a pathway to new and necessary kinds of futures beyond the Anthropocene. Second, I argue for the utility of the posthuman (emphasizing the literally nonhuman) in identitarian discourses including queer theory and Black studies. Third, I define a unique subgenre of post-apocalyptic narrative, called end of the world dystopia, which imagines and often celebrates what comes after the end of Man. In the subsequent sections of this introduction I first define—for the purposes of this project, at least—humanism and posthumanism. I then map the subgenre of end of the world dystopia, placing it in relation to other similar and at times overlapping contemporary genres such as American disaster films, climate change fiction, zombie films, contagion narratives, superhero origin narratives, and science fiction. To provide context to my own arguments, I subsequently track a handful of contemporary approaches to posthumanism in relation to the exigencies of anthropogenic climate change. I then outline the chapters in this book and explain the ways in which my project will depart from common approaches to posthumanism.

⁶ VanderMeer, *Acceptance*, 338

Defining Humanism and Posthumanism

In the previous section I introduced the stakes of my project, foregrounding engagements with the nonhuman as the space from which to reconsider our responses to anthropogenic climate change. Before undertaking an exploration of the narrative genres to which my archive is related, and attempting to place those genres into a historical context, I will attempt to offer functional definitions of humanism and posthumanism in order to frame and delimit the project.

Many scholars refer (often vaguely) to a particular set of humanist values in the present-day as “Enlightenment humanism.” Foucault has argued that the Enlightenment was a very specific point in history, that there have been many humanisms, some of which preceded modernity, and that each of these humanisms is unique among other past and contemporary humanisms. Humanism is, according to Foucault, “too supple, too diverse, [and] too inconsistent to serve as an axis for reflection.” It is, furthermore, a historically reflexive discourse, in the sense that conceptions of the human are always buttressed by ideas arising, at the same time, from fields like religion, science, and politics. Research stemming from humanist lines of inquiry is therefore used to justify the “conceptions of man to which [humanism] is, after all, obliged to take recourse.”⁷ Humanism, even “Enlightenment humanism,” is a moving target in a complex historical field. I wish to be responsible to my reader by defining both humanism and posthumanism, but I am also aware that any claim to a comprehensive analytical definition of humanism is at best sloppy and at worst dishonest. It would also be hypocritical to claim to be wholly critical of all parts of humanism, many aspects of which—universal human rights, for example—are now prevalent and nearly universally shared values in contemporary Western culture and hold no small significance for me personally.

⁷ Foucault, *The Foucault Reader*, 43-44

The understanding of humanism as exclusionary has great importance for this project. Sylvia Wynter's "Unsettling the Coloniality of Being/Power/Truth/Freedom" begins with the last two paragraphs of Foucault's *The Order of Things*, in which he states that man is a "recent invention" made possible only by "a change in the fundamental arrangements of knowledge."⁸ While Foucault does state elsewhere that the various historical instances of humanism have served more as "a critical principle of differentiation" than an appeal to universality and shared humanity, he comes nowhere near, in this passage cited by Wynter, to confirming her overarching claim that the definition of "Man" has been and remains an exclusionary process which has marked both laboring populations and inhabitants of the periphery as outside the category of the human.⁹ This is not to say that Foucault would ultimately disagree, but that Wynter paints with a very broad brush what Foucault, in hundreds and hundreds of pages on the topic, only hinted at. A definition of humanism as exclusionary, as in line with Wynter's overall formulaic, is certainly what my archive evokes, but there are additional, nuanced points not proffered in Wynter's essay.

Both Sylvia Wynter and Talal Asad cite the same sixteenth-century discourse between Bartolomé de las Casas and Hernando Cortés in arguing that the humanism of Western modernity is tightly coupled to religious ideas about civilizing (ie. colonizing, converting, and imperializing) inhabitants of the periphery.¹⁰ "[W]hat the modern world has inherited from the Enlightenment," according to Asad, "is not simply the moral standard that universal suffering should be reduced but a complex genealogy [...] in which compassion and benevolence are

⁸ Foucault, *The Order of Things*, 387

⁹ Foucault, *The Foucault Reader*, 44

¹⁰ Asad, "Reflections on Violence, Law, and Humanitarianism", 398; Wynter, "Unsettling the Coloniality of Being/Power/Truth/Freedom", 269

intertwined with violence and cruelty [in] a mutual dependence.”¹¹ This is not to say, Asad clarifies, that the dualities between exclusion and inclusion, cruelty and benevolence, and violence and love common to Christian doctrine have been transferred unaltered to contemporary secular humanitarianism, but that, without a doubt, the idea of *sympathy* between colonizer and colonized was a complex emotional context which both obscured and justified “relations of domination and subjection.”¹² Contemporary humanitarian projects may bring different (ie. neoliberal) power relations and violences to the populations they target, but the impulse nevertheless stems from the same context of Western hegemony.

Just as Foucault argues that there have been many humanisms in the history of the West, here have also been many non-Western humanisms. Slavica Jakelić cites Confucianism, humanist expressions of Islamist thought, the humanism arising from Buddhist ethics, and the pan-African ubuntu tradition.¹³ When I use Wynter’s term, “Man,” or invoke the term “humanism,” I refer to the exclusionary historical version associated with hegemonic Western modernity, as described by both Wynter and Asad. I include in these terms both their historical “civilizing” imperative and the contemporary analogs of that imperative as they occur in neoliberal humanitarianism and human rights appeals. I also include in these composite terms their generally anthropocentric underpinnings, which position humans alone as capable of embodying or effecting unending improvement or progress, whether in terms of evolution or liberal human rights advances. In summary, for the purposes of this project, I limit humanism to a set of values and practices coalescing in Western modernity to effect the definition of Man and

¹¹ Asad, “Reflections on Violence, Law, and Humanitarianism”, 393

¹² Asad, *ibid*, 400

¹³ Jakelić, “Humanism and Its Critics”, 6

the human which draw on the historical exclusion of indigenous or racialized others, often for the furtherance of global capital.

I will also offer a brief definition of posthumanism because there have been many versions of the posthuman, some of which conflict with others, and while the life of posthumanism is shorter by centuries than humanism, it has come, over time, even over the course of various careers, to mean many different things. In *Meeting the Universe Halfway* Karen Barad defines posthumanism as “the critical recognition that nonhumans play an important role in naturalcultural practices, including everyday social practices, scientific practices, and practices that do not include humans.”¹⁴ The term “natureculture” or “naturalcultural” appears in the work of other posthuman scholars including Donna Haraway and Samantha Frost. It is employed to convey that the author does not believe in a neat separation between the natural world and human culture. What I would point out about this passage is that “naturalcultural practices” is not qualified with the adjective “human.” Scholars like Bruno Latour, Haraway, Barad, and Frost have done remarkable work revising our understandings of human bodies and cultures. In general, this approach to posthumanism exposes the fact that the boundaries of human domains are in fact extremely porous and regularly crossed and inhabited by nonhumans. There is, however, still an intense focus on human cultures and little space left in the critical field for the rest of the living world—what Barad refers to as “practices that do not include humans.” What “naturalcultural practices” might mean for an algal mat, a tree, a colony of bacteria, or the plant inhabitants of a marsh, I have no idea. I worry that this particularly anthropocentric concept only marginally applies to most nonhumans. And most of the intra-action on the planet is conducted by nonhumans with no human contribution whatsoever.

¹⁴ Barad, *Meeting the Universe Halfway*, 32

It is also rare for these scholars to imagine the end of the human. The focus of this predominant vein of posthumanism is, rather, on revising human knowledge of our relation to nonhumans in the hopes that humanity can be improved—a goal heavily invested in liberal humanist notions of progress. This despite the fact that, in general, exposing humans’ ties to and dependency upon nonhumans (gut flora, infectious diseases, nonhuman factors which trigger epigenetic effects, etc.) depicts a *Homo sapiens* far less “free” to progressively effect a liberal humanist world.

Some of these scholars, Donna Haraway in particular with her earlier work including “Cyborg Manifesto,” flirt with the concepts of transhumanism. Transhumanism is an optimistic and technological vein of posthumanism which explores concepts like bodily augmentation, life extension, and consciousness upload (to server farms for eternal life). While some of these technologies may, ultimately, become a part of human cultures (at least in the global North, if we don’t die first from the side effects of anthropogenic climate change) I am highly skeptical, for personal reasons, of the possibility that any of these technologies will greatly improve human life, or result in a world that is in any way more utopian or sustainable than the present. There are two reasons for that. First, I have been diagnosed with Crohn’s disease. The prosthesis I am most likely to receive, if my illness should ever get out of control, is that most disgusting of prostheses: a colostomy bag. Diversions of the large or small intestines to a colostomy bag are difficult to reverse, prone to infection, and rarely result in a reversal of symptoms. Human augmentation has, with respect to this prosthesis in particular, a very long way to go to be truly effective or even humane. And the fact that such a disgusting, irreversible prosthesis, one that will not even necessarily relieve one’s symptoms, might be categorized as a utopian solution is clear evidence of the disconnect between the optimism of transhumanism and the lived

experience of individuals with disabilities and chronic illnesses. I am appreciative, but also skeptical of the picture painted by “Cyborg Manifesto,” of the woman augmented in order to improve and enhance her life and world. More likely, humans will be augmented—some would say many of us are already pharmacologically augmented in such a fashion—in order to make us more efficient and compliant laborers and consumers. A more cynical take on the fact that the preponderance of medical research into chronic illness now focuses on pharmaceutical palliatives rather than causes and cures—the fact that there are now at least 10 extremely expensive medications available with which I might suppress my overactive immune system but still no clear explanation for what *causes* Crohn’s—is that curing patients with a chronic illness is lucrative for no one. Especially not when compared to lifelong treatment.

I am also a long-time software engineer who has enough experience with server administration to know that things break down. Server farms require constant maintenance and cooling. This cooling consumes copious amounts of energy. Humans could never *all* be uploaded into a software utopia. There would always be an underclass of technicians—and their employers and supervisors—maintaining these utopias from the outside. And the minute electricity became expensive or unavailable, server farms would become utterly unsustainable. Many of the utopian ideas connected to transhumanism depend, in this manner, upon the continued existence of our very much non-utopian world of global capital and neoliberal biopolitics—particularly subsidized electricity costs. It is only a lack of intellectual rigor—or perhaps a proclivity to deploy optimism in order to milk investors for whatever they are worth—that allows these myths, these apotheoses of unsustainable growth, to perpetuate. Because of these unaddressed shortcomings in the field of transhumanist thought, I will for the most part not be addressing its concepts or prospects in this project.

Cary Wolfe also includes, in his diagrammatic account of posthumanisms, animal studies thinkers engaged in bioethical discourse. Peter Singer, for instance, argued that in following with the utilitarian precept of the “greatest good,” humans should seek to minimize the suffering of animals.¹⁵ While most humans agree that it is good to avoid or reduce the unnecessary suffering of animals (and disagree, for the most part, upon the extent to which humans should go to effect that avoidance or reduction), discourses around animal rights and animal suffering are posthuman in the sense that they attempt to open or expand the category of the human to other animals, usually other mammals and in particular other primates. Unfortunately, because animal rights appeals are based on suffering—or, rather, what might more accurately be called the appearance of suffering, since humans can easily detect suffering only in other higher mammals—the animal rights appeal is anthropocentric in the sense that it is limited to an extremely narrow, anthropomorphic scope of the nonhuman world. The truly nonhuman posthuman to which this project is addressed extends far beyond the kinds of organisms considered in such discourse.

There is a branch of disability studies oriented less to rights and advocacy than to the ways in which the phenomenological or developmental effects of disabilities can *extend* human perception out into the worlds of nonhumans. The work of Temple Grandin is an example of this type of disability studies text. Disability studies is another extremely diverse and internally conflicted field of inquiry. All manner of discourses and appeals find a home in disability studies, and frequently disagree with one another. One will find in disability studies, for example, both appeals for treatment and appeals for freedom from treatment, both appeals for accommodation and arguments against accommodation. In particular, arguments around physical

¹⁵ Wolfe, *What Is Posthumanism?*, 124-26

disability frequently conflict with arguments around neurodiversity and mental illness in terms of accommodations, agency, and treatment. Grandin's claims that her neurodiverse status gave her special abilities would cause problems for advocates seeking standardizations of diagnosis and care, or increased accommodations for the neurodiverse. This project's archive features fetid zombie bodies, bodies transformed in response to anthropogenic climate change, bodies imbued with special abilities that isolate them and expose them to danger, bodies colonized and altered by Area X into a multitude of hybrid fungal and animal forms, bodies which incubate alien species, and bodies which manifest both human and alien features. So there is a natural overlap between this archive and the various argumentative threads of disability studies. But in its pursuit of the truly nonhuman posthuman, my archive entertains very few human rights appeals. In fact, even where human rights appeals are addressed, as they are by Lilith Iyapo's child Akin in *Adulthood Rites*, the eventual solution is a compromise between human and alien needs, and there is clearly no human future without this compromise. For these reasons, I will not be engaging overtly with disability studies discourse. When I invoke posthumanism, I refer to the vein of posthumanism which, as Barad articulates, acknowledges the role of nonhumans in human "natureculture" and allows for the possibility of "practices" outside the human.

There are strains of thought available to us which truly decenter the human. An example from the nineteenth century is the semiotics of Charles Peirce, an American chemist, mathematician, surveyor, and pragmatic systematizer.¹⁶ While Saussure would later make spoken language the heart of his semiotics, Peirce's perspective originates in vision and diagrammatic thinking. His semiotics is couched in logic, phenomenology, and the normative sciences.¹⁷ For

¹⁶ de Waal, *Peirce*, p. 11

¹⁷ de Waal, *ibid*, p. 75

Peirce, the function of signs is not diadic but triadic. Peirce's signs stand in relation to both an object of reference and an "interpretant" (the effect produced by the sign).¹⁸ Peirce's pragmatism thus accounts for the phenomenological messiness of perception much more earnestly than structuralist theories of signification. For Peirce, a sign is still a sign even if there never has been and never will be any person to interpret it. This approach, albeit perhaps incidentally, legitimizes signs even in the absence of human interpretation, decentering humans in the study of the process of meaning production.

In the twentieth and early twenty-first centuries, systems theory both decenters the human and implicitly problematizes many kinds of appeals for human rights by granting no special status, among biological systems, to human biological systems. This includes most of Maturana and Varela's work on living systems, and most work in systems theory. Developmental systems theorists like Susan Oyama also fit into this category because the mechanisms identified by developmental systems theory appear in all living organisms—and are, in fact, often studied in simple organisms like *C. elegans*. Oyama, not unsurprisingly, spends a good deal of some of her books challenging anthropocentrism in scientific perspectives and narratives—the idea, for example, that DNA is a "Bible" containing the "truth" which humans have "mastered."¹⁹ Likewise, Karen Barad extends Niels Bohr's work on causality and experimentation, articulating concepts like "intra-action" and "agential realism" which confound individual human agency and, by extension, the notion of human individuals.²⁰ These are all clear examples of theories or

¹⁸ de Waal, *ibid*, p. 79-81; Peirce, *Collected Papers*, p. 228

¹⁹ Oyama, "Lure of Immateriality", p. 91

²⁰ Barad, *Meeting the Universe Halfway*, 23-26, 33-36

knowledge systems which decenter human individuality and agency, implicitly undermine the hegemony of Man, and offer an entry-point for thinking about the nonhuman posthuman.

In this section I have articulated a definition of Man, the human, and humanism, and narrowed my functional definition of posthumanism. In the subsequent section, I employ these newly delimited terms—including Man, the human, humanism, and the posthuman—to describe a new, contemporary subgenre: end of the world dystopia.

“Containment has Failed”: Apocalypse, Post-Apocalyptic Narrative, and End of the World Dystopia

The last twenty years have seen an unprecedented number of films, novels, and other narrative artifacts exploring disaster, contagion, and climate change. These works, which fall roughly into the classifications of apocalyptic and post-apocalyptic, can be found in countless media and genres, including climate change fiction (cli-fi), zombie films, superhero origin films, and science fiction. Apocalyptic narratives invoke disaster and apocalypse in order to provide a moral or functional “reset” for society, and these works reference much older narrative traditions like the biblical books of Daniel and Revelations and various historical works classified as American jeremiad. Post-apocalyptic narratives, by contrast, invoke large-scale disasters, contagions, and other mechanisms which trigger climactic or societal breakdown in order to imagine, explore, and sometimes even celebrate the end of our world. In the previous section, I provided working definitions for Man, humanism, and posthumanism in the context of this project. In this section I put those definitions to work to situate a small subset of post-apocalyptic narratives in the context of these larger genres. These narratives, works which I call end of the world dystopia, explore the end of the human.

Many of the genres in which apocalyptic and post-apocalyptic narratives are found are relatively late additions to the Western canon. Cli-fi has one of the most recent dates of origin.

According to Alison Sperling, the first two works of cli-fi were Ursula LeGiun's *Lathe of Heaven* (1971) and Arthur Herzog's *Heat* (1977).²¹ Sperling argues that these works were a response to a version of American environmentalism, sometimes categorized as "apocalyptic environmentalism," which first arose in the mid to late 1960s. This strain of environmentalism includes texts such as Rachel Carson's *Silent Spring* (1962), Garret Hardin's *The Tragedy of the Commons* (1968), Paul Ehrlich's *The Population Bomb* (1968), Donella H. Meadows' *The Limits to Growth* (1972), and Edward Goldsmith's *The Blueprint to Survival* (1972).²² "Apocalyptic environmentalism" concludes, based on the expansion of global capital and the limited resources of the planet, that unless humans change their behaviors Earth will become polluted, overpopulated, species-poor, and ultimately uninhabitable.

Recent attention has been paid to the moralizing tone of traditional US American environmentalism. Nicole Seymour's *Bad Environmentalism* presents a jocular, profane, and at times perverse archive which proves that environmentalist appeals need not be couched in reverence, sanctimony, and humanist moral invective.²³ By foregrounding environmental appeals which start from neither moral nor in some cases even humanist terms, *Bad Environmentalism* begs several questions both about the historical conditions which trigger apocalyptic environmentalism and about the origin of the moral imperative in environmental appeals. While the reverence common to US American environmentalism can be found much earlier—the diaries of John Muir and the photography of Ansel Adams are easy examples—moralist environmentalism achieves its highest pitch in texts like those listed above, the wholly secular

²¹ Sperling, *Climate Fictions*, 10

²² , "Apocalyptic Environmentalism."

²³ Seymour, *Bad Environmentalism*.

“apocalyptic environmentalist” tracts of the 1960s and 70s. Sergio Fava suggests that Americans were particularly primed for apocalyptic environmentalism by the vast and highly technical devastation of World War II and the threat of “mutually assured destruction” which accompanied the Cold War. These geopolitical changes served to transmute a more generic and religious millenarianism to a collective, empirical sense of inevitability, a “widespread cultural awareness that the end can come suddenly, totally, without warning. Without signs.”²⁴

The apocalypticism in apocalyptic environmentalism originates in but differs from older religious narrative traditions. Historical apocalyptic narratives had, according to Ritzenhoff and Krewani, three parts: the Resurrection, the Final Judgement, and the building of New Jerusalem.²⁵ In agreement with Fava (though in somewhat different terms), they argue that secularization and historical conditions have altered apocalyptic narratives, collapsing “a threefold into a twofold story: the sinful mankind and its destruction as God’s punishment.”²⁶ I question this claim on the grounds that many contemporary apocalyptic narratives contain the three-part pattern, usually ending with a scientific *deus ex machina* that returns the world to a morally cleansed but relatively unchanged neoliberal humanist state. Recent examples include Marc Forster’s *World War Z* (2013), M. Night Shyamalan’s *The Happening* (2008), and Steven Soderbergh’s *Contagion* (2011). In these narratives, an external cleansing force purifies the human world of moral decay. These films end with a restoration of civil society, concluding with a world that, while perhaps humbled and definitely less populated, is otherwise unchanged.

²⁴ Fava, *Environmental Apocalypse in Science and Art*, 62

²⁵ Ritzenhoff and Krewani, *The Apocalypse in Film*, xii

²⁶ Ritzenhoff and Krewani, *ibid*, xiii

Steven Goldsmith's work on prophecy, apocalypse, and heuristics, in combination with Sacvan Bercovitch's distinction between the European and American jeremiad, offers a more robust context for these contemporary apocalyptic narratives. According to Steven Goldsmith, apocalyptic narrative developed alongside but is not equal to biblical prophecy. Goldsmith tracks the difference between biblical prophecy and apocalypse as they occur in the books of Daniel and Revelations. Apocalypse, according to Goldsmith, is a narrative strategy informed by the existence of books and rooted in hermeneutic practice. Apocalypse brings with it a very different sense of history than prophecy. In particular, the author of apocalypse believes that history is utterly corrupt, that the world "has been so usurped by evil forces that it cannot possibly function as the medium of divine activity."²⁷ These apocalyptic sensibilities, including a deep investment in a moral "reset" of society, subsequently come to appear, according to Sacvan Bercovitch, in sermons of the American jeremiad. Where the European jeremiad takes the form of lament, the American jeremiad is more optimistic.²⁸ God's punishments, according to this formulaic, are corrective, not destructive, and his vengeance a sign of love.²⁹ Rather than destruction which brings on the end of history, the American jeremiad conveys a cyclical view of history, punctuated by periods of cleansing and renewal.³⁰

Contemporary apocalyptic narratives which conclude with a *deus ex machina* "reset" can thus be said to reference the American jeremiad (the optimism of which was surely connected to the commerce-oriented nature of Modern, middle-class Protestantism). They contain narrative tropes and devices which persist in end of the world dystopia. The first of these tropes is the

²⁷ Goldsmith, *Unbuilding Jerusalem*, p. 31

²⁸ Bercovitch, *The American Jeremiad*, p. 6-7

²⁹ Bercovitch, *ibid*, p. 8

³⁰ Bercovitch, *ibid*, p. 16

sense of moral retribution tied to the origins of apocalypse. In these narratives, apocalypse is usually triggered by humans doing irresponsible things with science or technology. In George Romero's seminal zombie apocalypse *Night of the Living Dead* (1968), this trope takes the form of radiation from a space probe. In contagion narratives, the same trope might appear as a single scientist accidentally or intentionally releasing an altered strain of the flu. Or as liberalized global capital which brings about the combination of overpopulation, accelerated global travel, and encroachment on former wild spaces that enables a virus or bacteria to jump to humans.

In most cases, the ever-accelerating liberalization of money, data, goods, behaviors, and infectious agents examined in Jean Baudrillard's *The Ecstasy of Communication* serves to amplify this mishandling of science or technology, rendering institutional attempts at management or containment laughably ineffective. Emily Martin describes a neoliberalism whose pressures demand a "flexible subject": malleable, compliant, more easily surveilled.³¹ In a more positive and generative light, Ramzi Fawaz invokes "fluxability," to describe the unmanageable changeability of postwar superhero bodies—bodies pushed by late capital to a point of crisis beyond the margins of the "flexible subject."³² Contemporary apocalyptic narratives also explore this crisis—but not at the point of the individual human body. From the broader scope of the nation-state or society, these narratives ask what neoliberalism has done to the structures and institutions that shape human lives, and just how much disruption via liberalization they can handle.

A common visual trope found in most contemporary apocalyptic narratives is scenes of destruction and decay involving structures and landmarks which symbolize the world of Man.

³¹ Martin, *Flexible Bodies*.

³² Fawaz, *The New Mutants*, p. 11

Examples include *The Day After Tomorrow*'s (2004) Statue of Liberty scaled by a tsunami to stand eye deep in snow and ice, *Waterworld*'s (1995) underwater city scapes, and the reclaimed Las Vegas strip featured in *Army of the Dead* (2021) and Amazon's TV adaptation of Steven King's *The Stand* (2021). In the first season of *The Walking Dead*, Rick rides his horse down an abandoned five-lane highway into Atlanta, passing empty, litter-strewn streets and apartment buildings which sprout vines and shrubs. The distant pan of a burning downtown Philadelphia in *World War Z*, as a Marine intones into a walkie-talkie that "containment has failed" is, at this point, a cliché. Ritzenhoff and Trewani suggest that this trope, of the distant city skyline with buildings belching smoke and peppered with explosions, arose in American disaster films after 9/11 and alludes to the disaster porn disseminated by mass media at that time.³³ There are now even nonfictional explorations of apocalyptic scenarios. Mark S. Jendrysik points to Alan Weisman's nonfiction book *The World Without Us*, National Geographic's documentary *Aftermath: Population Zero*, and History Channel's *Life after People* as nonfictional explorations of post-apocalyptic scenarios, all of which revel in the scenes and processes by which the structures of our world will be slowly disassembled by other organisms and the simple passage of time.

The third trope common to contemporary apocalypse narratives is that of the survivor or band of survivors. Boluk and Lenz, with reference to Jennifer Cooke, trace the trope of the lone survivor to historical plague narratives.³⁴ One of the earliest examples is the fourteenth-century Irish monk John Clyn, solitary survivor of an outbreak of Black Death at a secluded monastery. In written records, Clyn wonders whether anyone outside the monastery has survived, and writes

³³ Ritzenhoff and Krewani, *The Apocalypse in Film*, xiii

³⁴ Boluk and Lenz, *Generation Zombie*, 8; Cooke, *Legacies of Plague in Literature, Theory and Film*, 12

as though he might be the “Last Man”: “lest the writing should perish with the writer and the work should fail with the workman, I leave behind me parchment for continuing it; if any man should have the good fortune to survive this calamity, or any one of the race of Adam should escape this pestilence, and live to continue what I have begun.”³⁵ This coheres with the prevalence of first-person perspective in apocalypse narratives, and its underlying intimation that the narrator—any remaining narrator—might be narrating for no one, might in fact be the last.

Post-apocalyptic narratives share these tropes, but diverge from the three-part apocalyptic narrative described by Rizenhoff and Krewani, with its Resurrection, Final Judgement, and New Jerusalem. Unlike contemporary apocalyptic narratives which end with a secular moral “reset,” post-apocalyptic narratives simply continue past the apocalyptic end. No reset takes place. The world of Man is not restored. Narratives which deny the reader or viewer this “New Jerusalem” ending could be seen, according to Goldsmith’s logic, either to reference the more lamentary European version of the jeremiad or to have made a wholly new and unique secular departure from previous forms. I favor the latter interpretation, in no small part because the works in my archive are only half lament. Each in its own way stages a clear departure from humanist values. They depict—and then look beyond—the fall of Western civilization, the end of global capital, and the end of the human.

Apocalyptic and post-apocalyptic narratives give joint expression to particular historical and environmental anxieties. The somewhat less moralistic post-apocalyptic narrative expresses skepticism about either the feasibility or deservedness of the moral “reset” offered by contemporary apocalyptic narrative. The difference between the two narrative classifications can be seen by comparing Romero’s *Night of the Living Dead* (1968) and his subsequent *Dawn of the*

³⁵ Brennan, *An Ecclesiastical History of Ireland*, 42

Dead (1978). *Night of the Living Dead* is apocalypse. It ends in the morning with the survivor, a Black man, shot by a posse as it clears the countryside, signaling a restoration of the world of Man and the racist status quo. *Dawn of the Dead*, by contrast, is a post-apocalyptic narrative, continuing for days and weeks after the collapse of Western civilization. *Dawn of the Dead* also, consequently, features a Black man as the only male survivor, and marks a change in the symbolic freight of the zombie, shifting its resonance permanently and viscerally to the undying, ever-expanding monster of global capital and the “consumer” capitalism it effects.³⁶ This moral condemnation of global capital, white hegemony, and Western civilization—this willingness to throw off all illusions as to the goodness of our economic world system—is one of the features of post-apocalyptic narratives.

In his work on the US American horror film, Robin Wood draws a distinction between “reactionary” and “apocalyptic” horror, explaining that reactionary works seek a restoration of traditional values, presenting monsters as a threat to the “natural” order of the nuclear family and traditional gender roles. Apocalyptic horror, by contrast, lionizes the monster as a challenge to and undermining of our ostensibly shallow investments in traditional values. Apocalyptic horror thus revels in the targeting and destruction of figures which represent traditional values.³⁷ Wood’s distinction between reactionary and apocalyptic horror is perhaps the closest and cleanest analog to the distinction I am drawing between apocalyptic and post-apocalyptic narratives, with reactionary horror mapping to apocalyptic narrative, and apocalyptic horror mapping to post-apocalyptic narrative.

³⁶ Wood, Grant, and Lippe, *Robin Wood on the Horror Film*, 168, “The zombies [...] represent the whole dead weight of patriarchal consumer capitalism [...] motivated by consumer greed (which the zombies simply carry to its logical conclusion by consuming people)”

³⁷ Wood, Grant, and Lippe, *ibid*, 102-03

Post-apocalyptic narrative is also sometimes referred to as dystopian narrative, even though the narratives in my archive are drastically different from traditional dystopias. As the highly regulated, pharmacologically managed societies depicted in novels like *1984* and *Fahrenheit 451* attest, dystopian narratives are not a new addition to the fantastic genres which have captured the human imagination. Orwell and Bradbury described societies of compliant, heavily-surveilled individuals, but recent dystopian narratives frame entirely different worlds. AMC's *The Walking Dead* is an easy example: the show's premise is not oppressive, overarching bureaucracy and technological advancement but an infectious disease which brings about the end of modern civilization.

In prior eras, dystopia seems to have served as a prescient warning against oppression, conformity, and censorship. But *The Walking Dead* and narratives like it are instructive in entirely different ways—and, I would argue, pleasurable in instructive ways. We don't read or watch or listen to post-apocalyptic narratives because we want to be warned against an oppressive society. Rather, we engage these new narratives because we already live in societies which to no small degree resemble those in *1984* and *Fahrenheit 451*. My phone tells anyone with the right skills or access where I am every minute of every day. The personal photos I take with my phone are catalogued by facial recognition software and screened for child pornography. In many jurisdictions, I can be arrested if a photo of me on social media resembles a criminal caught on camera. And I do not even have access, in exchange, to the affordable health care, universal education, and full employment available in so many conventionally dystopian worlds.

We engage post-apocalyptic narrative in part for the vicarious pleasure of watching our world, a world where it is increasingly difficult to be or to do good, to live a meaningful or even satisfying life, a world absent most of the benefits of even the worst dystopias, be destroyed.

Post-apocalyptic narrative is a doomsday prepper's Eden of authenticity, practical life skills, and never having to go along (that is, suppress your fight-or-flight reflex) to get along. No more guilt and trepidation over global population growth or anthropogenic climate change. Better to run from actual zombies than from falling market index values, mortgage payments, prescription copays, and balance billing. These dangerous and strangely engaging worlds signal to us all of the ways in which we have tired of our own. Beyond anxieties about climate change and concern for the stability of economies and nation-states, the genre expresses a profound desire for authentic ways of living and an increasing cynicism about the success of the humanist project.

Just a decade after the release of Romero's *Dawn of the Dead*, post-apocalyptic narrative was thoroughly embedded in our culture. In a 1991 interview, Octavia Butler discusses the recent release of *Dawn*, the first volume of *Xenogenesis*, describing such scenarios as "post-apocalyptic," and openly speculating about what would happen to the US and Canada in eco-catastrophe, based on the soil nutrient inputs from the last ice age. If the novels themselves weren't sufficient evidence, this interview passage makes clear that Butler's work on both the *Xenogenesis* and *Earthseed* series represents the playing out of variations on the theme of environmental apocalypse informed by an in-depth understanding of climate, agriculture, and the fragility of natural systems:

I don't think we are more likely to survive than any other species especially considering that we have overspecialized ourselves into an interesting corner. [... In this future the] greenhouse effect has intensified and there has been a certain amount of starvation and agricultural displacement. There are real problems. Some of our prime agricultural land won't be able to produce the crops that it's been producing and Canada will have the climate, but on the other hand Canada caught the brunt of the last few ice ages and has lost a lot of top soil, which wound up down here. These are big problems and they are not

sexy as problems so they are not the prime problems in the series that I am working on, but they're in the background.³⁸

Xenogenesis and *Earthseed* series are some of the first to channel the concerns of apocalyptic environmentalism into full-blooded scenarios of ecological degradation, scarcity, and societal breakdown. Later examples are far easier to find, and our culture is presently saturated with apocalyptic and post-apocalyptic narratives, more and more of which can be categorized as end of the world dystopia. End of the world dystopia does not become mainstream until much later in the twentieth century—as anxieties about the stability of neoliberal nation-states are exacerbated by global terrorist networks, a series of near-pandemics, and increasing public awareness of anthropogenic climate change.

To reiterate: both post-apocalyptic narratives and the subset of post-apocalyptic narratives which I classify end of the world dystopia can be distinguished from apocalyptic narratives by the simple fact that they tend to portray time periods which extend long after apocalypse, presenting or returning to an uninhabitable Earth. End of the world dystopias can then be distinguished from post-apocalyptic narrative by the fact that they imagine nonhuman futures. They also have most or all of the following features.³⁹ First, the survivors in end of the world dystopias tend to be nonwhite, queer, crip, or enhanced individuals—those who least easily represent the world of Man. This trope can be found as early as George Romero's *Night of the Living Dead* (1968) and *Dawn of the Dead* (1978), and could be argued to have been invented by Romero. In both films, the last male to survive the catastrophe is Black, and various scenes imply that these protagonists are most able to adapt to a world in which human

³⁸ Sanders, "Interview with Octavia Butler."

³⁹ Most of the tropes I will list here were established before the coalescence of end of the world dystopia into a clear subgenre of post-apocalyptic narrative.

institutions fail or disappear because they had previously faced some degree of alienation or exclusion from the human. Chapter 3 includes a section on Colson Whitehead's *Zone One*, which plays on this convention by failing to disclose until the final pages of the novel that the protagonist, Mark Spitz, is Black. This connection between Western civilization, global capital, and exclusionary definitions of the human, apparent in most post-apocalyptic narratives, becomes a clear and emphatic trinity in end of the world dystopias.

AMC's *The Walking Dead*—a post-apocalyptic narrative which meets some but not all of the qualifications of end of the world dystopia—inhabits a constant tension in this regard, reveling visually in the downfall and decay of Man while intermittently insisting on the value of its institutions and the possibility of restoration. Rick, the infallibly honest, white, Southern lawman in his sheriff's hat and uniform, represents all the good parts of the lost world of Man—even while institutional failures like the fall of the CDC and the all-too-prevalent meltdowns at military safe zones and hospitals attest to the inability of neoliberal institutions to truly care for human beings. Meanwhile, in coherence with a common trope of end of the world dystopia, the band of survivors around Rick grows more and more diverse—in terms of race, sexuality, and class background. Rick eventually leaves the series—possibly because much of what he represents has been replaced by a functional set of communities, the increasing diversity of which reflects the fact that the world has long outlived—or perhaps survived—the institutions intimately tied to global capital and the hegemony of whiteness.

A second trope found in end of the world dystopia is the altering and decentering of the human. This can take the form of superhuman abilities, such as those possessed by Ruth, Lila, and Bo in *Fast Color*. It can take the form, as in *Alien Resurrection* and Jeff VanderMeer's *Southern Reach Trilogy*, of bringing humans into contact with fatally inhuman alien entities.

Octavia Butler's *Xenogenesis Trilogy* imagines the occupation and forced hybridization of humans at the hands of an advanced alien species. Alexis Pauline Gumbs' *M Archive* imagines the cleaving of *Homo sapiens*, under the pressures of anthropogenic climate change, into sedentary, marine, subterranean, and airborne lifeforms.

The third trope common to end of the world dystopia is enstrangement—the horror, disgust, and dysmorphia characters experience when brought face to face with the profoundly nonhuman. These responses are, of course, strongest when characters undergo changes to their own bodies. Those who fail to survive, in end of the world dystopias, are those who cannot bear to look upon this nonhuman future. Both *Xenogenesis Trilogy* and *Southern Reach Trilogy* foreground the processes of acceptance and integration by which the colliding human and nonhuman ultimately rebalance and cohere. The scope and number of futures an end of the world dystopian narrative can offer tends to correlate with the narrative's engagement with nonhumans: the more intimate and open that engagement, the more futures the narrative depicts.

In this section I have argued that both apocalyptic environmentalism and contemporary apocalypse narrative share moral and narrative origins in the American jeremiad. I have used these origins to tease out theoretical differences between apocalyptic narrative and post-apocalyptic narrative, and pointed to additional aspects shared by works of end of the world dystopia. I have also noted the connection between Western civilization, global capital, and exclusionary definitions of the human, which I refer to collectively as Man or the world of Man. These connections are apparent in most post-apocalyptic narrative, and are given particular emphasis in end of the world dystopia. The fact that end of the world dystopia offers or strives to offer alternative futures or worlds, that these worlds are not utopian worlds, not improved human and humanist worlds but truly new, nonhuman worlds is not simply a feature of note. Imagining

and sometimes celebrating the nonhuman futures which might result from this world of Man is the explicit project of end of the world dystopia, the not-coincidental response to anthropogenic climate change and the plain fact that humans have collectively failed to curtail carbon emissions—not to mention population growth, large-scale species loss, and the encroachment of human habitation onto heretofore remote and wild spaces. Human intelligence is, the evidence suggests, largely ineffectual in the face of human self-interest. Nothing in human history and almost nothing in human imagination suggests that we are in fact capable of the task of meaningfully slowing, much less reversing, anthropogenic climate change. Not even a truly apocalyptic infectious disease “reset” would be sufficient to consistently maintain human population levels and consumption patterns at a permanently sustainable level. This is, in my opinion, why global capital, Western civilization, and humanism are so tightly linked in post-apocalyptic narratives and why end of the world dystopias tend to feature survivors who fell, in the “before times,” outside the exclusionary boundaries of the human. In narratives that strive to imagine something else, to present the nonhuman worlds that might come after, these less-than-human or barely-human protagonists carry the human reader or viewer as far outside the boundaries of the human as a narrative can go without departing from human phenomenology and cognition.

Such efforts are not uncommon to genres like science fiction. They are, however, uncommon if not contradictory to the explicit and implicit aims of most contemporary theoretical approaches in the humanities. How, after all, could disciplines designed to instruct and celebrate human works be expected to reckon with gestures toward nonhuman worlds and futures explicitly linked to the shortcomings of contemporary social and political practices and strongly suggesting the end of the humanist project? In the subsequent section, I explore some relevant

lines of thought in posthumanism, Black studies, and queer theory which will be of some use to this project.

“I leave behind me parchment”: Arguments in and Critiques of Posthumanism

While there is, at present, almost no truly nonhuman formulation of the posthuman in critical theory, in this section I identify some lines of discourse in posthumanism that will be useful to my project. I also explain how aspects of queer futurity and Black studies intersect and at times conflict with arguments in posthumanism, again identifying approaches useful to my argument.

Donna Haraway is a key figure in ecocritical posthumanist thought. Her popular “Cyborg Manifesto” celebrates the posthuman in technological hybridization of human bodies. Haraway is highly conscious of queerness and racial otherness in her work, and makes frequent reference to non-Western cultures. “Cyborg Manifesto” is for the most part a Marxist/materialist application of transhumanism, an offshoot of posthumanist thought on the cyborg and technological enhancement which embraces present-day and speculative technologies such as implants, genetic alterations, and the extension of human life through both medical techniques and the “uploading” of human consciousness to networked servers.⁴⁰ Haraway also did moving work in animal studies, focusing on symbiosis and cross-species communication among humans and domesticated mammals. Haraway’s later work has turned to anthropogenic climate change and questions of what will come after the geological epoch of human hegemony.

The introduction to *Staying with the Trouble* is a truly inspiring text that is a culmination of several essays and interviews on the Anthropocene, anthropogenic climate change, and what will come after. Haraway names her post-anthropocene era the “Chthulucene.” She describes this era as one of hybridity figured by serpentine or tentacled coiling. According to Haraway, the

⁴⁰ Wolfe, *What Is Posthumanism?*, p. xiii

Chthulucene is “simultaneously about past presence and what is to come,” a “thick kind of ongoingness [...] not about embracing life over death [...] but about embracing the snaky ongoingness of earthly worlding in its pasts, presents, and futures.”⁴¹ In the introduction to *Staying with the Trouble* Haraway calls for various practices towards the coming era: we must practice “multispecies worlding,” construct a “Terrapolis,” practice “sympoiesis.”⁴² The task is “living and dying in response-ability on a damaged earth [...] to make kin in lines of inventive connection as a practice of learning to live and die well.”⁴³ We will be “not ‘posthuman’ but ‘com-post.’”⁴⁴ It’s a beautiful and ultimately very humble vision of a future world beyond the end of Man.

Haraway calls her archive a collection of “science art worldings for staying with the trouble.”⁴⁵ They include *Never Alone (Kisima Ingitchuna)*, a video game developed “in collaboration with the Inupiat;” The Ako Project, which authors and publishes books about different species of lemurs and “nurtures empathy and knowledge about the extraordinary biodiversity of Madagascar *for the Malagasy*,” the Crochet Coral Reef Project; and “the Navajo weavers of Black Mesa, their sheep, and their alliances.”^{46,47} It is a unique and commendable

⁴¹ Haraway, “Interview by Juliana Fausto, Eduardo Viveiros de Castro, and Déborah Danowski.”

⁴² Haraway, *Staying with the Trouble*, 5, 10, 11; “Sympoiesis” is a tweak of the name systems theorists give to a system’s iterative self-articulation, which is called “autopoiesis.” In this case the suggestion is that organisms would conduct life by iteratively articulating one another. It’s a beautiful word and a beautiful idea. Autopoiesis would surely still be necessary.

⁴³ Haraway, *ibid*, 2

⁴⁴ Haraway, *ibid*, 11

⁴⁵ Haraway, *ibid*, 71

⁴⁶ I think it is possible that Haraway was taken for a ride with *Never Alone* and didn’t speak to many Native Alaskans outside of CITC’s supervision. Alaskans would not speak or write of “the Inupiat” as a monolith; they are spread across a mass of land larger than Texas. *Especially* if the project is sponsored by the Cook Inlet Tribal Council. Alaskans know that the CITC often allies with logging and mining interests which conflict with subsistence hunting, fishing, and gathering.

⁴⁷ Haraway, *Staying with the Trouble*, 78, 83, 87, 91

archive of fascinating projects. All advance short-term conservation goals, and three support initiatives to document and highlight indigenous knowledge. What is less clear is how any of these projects might possibly survive to the end of the Anthropocene, much less the next 15 years. There is a disjunct between the project's archive and the present state of the world. And an even larger disjunct between that archive and the "snaky ongoingness" of the Chthulucene to which the text aspires.

The southwest United States is currently in the worst drought in recorded history. While I was drafting this chapter in the summer of 2021, more than 100 people died in the Pacific Northwest from the heat. The water levels in Lake Mead have dropped to record lows. Will it even be possible to graze sheep in Arizona in 15 years (much less 100)? What do crocheted replicas of coral tell us about what we become or how we live when there are no more coral reefs? Video games will last only as long as we have electricity to power server farms, which, as bitcoin mining is finally making clear to the general populace, is not in the least energetically free. And unless things have changed drastically since 2006 when I last worked as an online learning administrator in Anchorage, internet connectivity in bush Alaska—*especially* sub-Arctic Alaska—is abysmal, with whole villages sharing a single satellite connection that frequently slows to dialup speeds. In addition, any Alaska Native village on the coastline (which is most) will have seen climate change first-hand. The children of Shishmaref do not need a video game to learn about climate change—their village is literally falling into the ocean. We face horrific, irrevocable changes to our planet which will trigger horrific, irrevocable changes to human physiology—if they are survivable in the first place. Maybe this is why Haraway in some ways disavows the posthuman for "com-post" in her Chthulucene vision, an unwillingness to accept or speculate on the unpleasant parts of becoming other than? What is "com-post" but rotting,

microbe-infested human flesh, a slow, perhaps more locally situated end of Man as a nourishing of the soil? The only vision of human embodiment or transformation in the text is this vision of death.

This project is addressed to the gap between Haraway's archive and her visions of a post-Anthropocene future. That gap is the space where my intervention takes root. The works in my archive anticipate and often depict the very difficult transformations which would be necessary to go from sheep farms to "tentacled [...] snaky ongoingness." One thing the humanities could use right now are *true* engagements with nonhuman agents—outside of banal human needs—and earnest engagements with the cynicism which now pervades most people's understanding of the humanist project. Works of art that are truly and earnestly addressed to anthropogenic climate change *must* address, alongside any hopes of continuing, the very high likelihood of *not* continuing. And there are now plenty of artifacts with which to take up these concerns.

Another thing this project builds on is efforts to theorize from or make theoretical connections with recent scientific discoveries—in particular with regard to epigenetic research. Epigenetics is generally defined as mechanisms which act *on* or *around* DNA (hence the Greek affix *epi-*) to affect heritable changes in gene expression without changing DNA's nucleotide sequence. With the term *epigenetic change*, I refer to any alteration, heritable or non-heritable, manifested by an organism as a result of one or more epigenetic mechanisms. Because of the understanding, in the humanities, of scientific narratives as deterministic, epigenetic research has for good reason been popular with humanities scholars in the last ten years. The strategy is often to use evidence of plasticity in scientific research to argue for a revision of scientific narratives, all of which, it is implied, have been deterministic in nature. There are milder examples of this. The work of Susan Oyama is an example of a scholar who questions deterministic interpretations

of scientific research while working, for the most part, from peer-reviewed scientific consensus. Catherine Malabou's essay "One Life" would be an alternative example, in which very broad claims both within critical theory and about scientific consensus are made based on epigenetic research.

I address the use of epigenetic research in humanities discourse in greater detail in Chapter 2, but I will say for now that in general I believe we do ourselves a disservice if we fail to provide a nuanced and well-researched interpretation of epigenetic change. Malabou's assertions that epigenetic changes in human tissues can be thought of as "resistance" to biopolitical pressures is difficult to support, given that epigenetic changes are involuntary and much more akin to respiration or digestion than that most voluntary of acts, collective action. Undergoing an epigenetic change or passing one to one's offspring is far more like eating spoiled food and getting food poisoning than it is like painting a poster and going to a protest march. If anything, evidence of negative epigenetic effects suggests that the human body has even greater vulnerability to and even less agency in the face of biopolitics than previously theorized.

And unaddressed in the larger claims about epigenetics being expressive of fluidity is the truth that epigenetic changes are not new at all. They are longstanding mechanisms common to all manner of simple and complex organisms. What is new is human knowledge of them. And as longstanding parts of the overall mechanism of genetic inheritance, their comprehensive role is probably as much about guaranteeing consistency as it is about instigating fluidity. After all, if (as we suspect) prenatal exposures to cigarette smoke or lead always bring about the same subset of negative epigenetic changes, there is nothing fluid or resistant about that. It is a predetermined (even, dare I say, programmatic) response to environmental conditions, albeit less binary than it would be in DNA, where a small subset of genes can be measured as "on" or "off." But the

molecules which produce epigenetic effects work in close concert with other mechanisms of the DNA macromolecule. What science has discovered, in epigenetic change, is not a new and novel train of inheritance but another piece of a complex and highly self-correcting assemblage to which DNA also belongs. Epigenetics does not show the human body to be any less a “set of functions.”⁴⁸ Rather, it shows our lack of understanding of the full complexity of those functions. This project makes implicit and explicit use of epigenetic research—in particular when implying that epigenetic mechanisms may play a part in the production of a future nonhuman posthuman. In my applications of it, I aspire to use it both impactfully and accurately, to, as Octavia Butler put it, “speculate in ways that make sense.”⁴⁹

I’ve tracked two important discourses in posthumanism that will be of use to this project. Now I turn to two discourses in identitarian studies. There is a particularly poignant critique of posthumanism originating in Black studies and expressed in the work of Zakkiyah Iman Jackson. Jackson builds on the concept of the exclusionary definition of Man articulated by Sylvia Wynter. She opposes what she calls the “transcendental” impulse in posthumanism—which could be said to include both Haraway’s post-Anthropocene Chthulucene and Malabou’s epigenetic “resistance.” This impulse, according to Jackson, gestures toward a “beyond” which seems to refer to a future space outside of both the human and contemporary human rights appeals. Jackson calls into question the positionality inferred by such gestures. This concept of “the beyond,” according to Jackson:

marks (racial/ized) metaphysics’ return, its *longue durée* and spectropoietics, such that race, particularly blackness, is precisely tasked with arbitrating fundamental questions of orientation. This is the case even when we turn to mathematics and science for adjudication. I argue that to suggest otherwise disavows both Western mathematics and

⁴⁸ Malabou, “One Life Only”, 433

⁴⁹ Sanders, “Interview with Octavia Butler.”

science's discursivity and the (imperial) history of these idioms' iterability as discourse [...] when one mobilizes the language of "law" or "properties" it says much about the location of the speaker and the discursive terms of the meeting of matter and meaning⁵⁰

In sum, Jackson associates the optimistic or "transcendental" tone of posthuman scholars with hegemonic whiteness and its historical discourses. She perceives in posthuman scholarship an unspoken historical link to imperialist practices, and makes an outright connection between Western modernity's instances of scientific racism and any claims to have moved *beyond* the human when so many humans have yet to be admitted into the category. Jackson believes that movement toward the actual nonhuman is, in fact, a "movement toward blackness, whether blackness is embraced or not."⁵¹ Because posthumanism makes frequent reference to institutions like science and law which have a history of reinforcing exclusionary definitions of the human, it is inherently contradictory—at once moving toward blackness and at the same time leveraging institutional discourses which have served to exclude Blacks from the category of Man.

I agree with Jackson about the exclusionary definition of Man and its existing links to humanism and the posthuman. I agree that movement toward a truly nonhuman posthuman is almost always a movement away from whiteness—I believe this because my archive bears it out. But my background in the natural sciences makes me skeptical of the idea that there are clear links (any clearer than in other disciplines) between today's scientific practices and the explicit scientific racism of the eighteenth and nineteenth century. The field is simply too complicated to condemn entire areas of study outright—especially when we know that the humanities were, at that time, no better. But Jackson's investment in the condemnation of centuries-long practices like science and law stems from another, much stronger impulse: Jackson would, ultimately, like

⁵⁰ Chen and Luciano, "Queer Inhumanisms Special Issue", 217

⁵¹ Chen and Luciano, *ibid*, 217

to revise the definition of the human. Her critique asks that the exclusionary definition of Man be revised, that Blackness be included. Jackson's is, ultimately, a critique on the grounds of universal human rights, a critique which, rather than looking to the nonhuman future, looks back on the inhuman past. Because my archive repeatedly surrenders the idea of inclusion and reparation in pursuit of the truly nonhuman posthuman beyond the world of Man, there are parts of Jackson's argument which run counter to the scope of this project. Nevertheless, Jackson's characterization of Blackness as outside the human functions as a fundamental point of departure.

So far in this section, I have explored two common threads within posthumanist discourse, as well as one critique of that discourse. A good way to summarize these approaches might be to say that in most cases, posthumanism is far more interested in "post-humanism," by which I mean critiques or revisions of humanism, than the "post-human," by which I mean lifeforms which outlast the world of Man. I want to examine one more critique of humanism which, while not posthuman, aligns in interesting ways with several works in my archive. That critique is the antisocial thesis first articulated by Leo Bersani and further developed by Lee Edelman in *No Future*, a key text of the discourse which has come to be called queer negativity.

In *No Future*, Lee Edelman advances the antisocial thesis with a uniquely temporal argument that progressive futurities, whether conservative or liberal, mobilize a "figural Child," linear time's future ideal citizen. According to Edelman, "the child has come to embody for us the telos of the social order and come to be seen as the one for whom that order is held in perpetual trust."⁵² Both conservative and liberal activists (for example, anti-abortion activists and environmentalists) make their appeals in the name of this figural Child. We are not able to

⁵² Edelman, *No Future*, 2, 11

conceive of a politics without an imaginary future involving this Child, but this idealized citizen, the figural Child, is used to limit the rights of actual living citizens.⁵³ Edelman calls this way of framing political debate “reproductive futurism.”⁵⁴

According to Edelman, reproductive futurism and its political discourses obscure “fantasies structurally necessary in order to maintain” social reality. Such politics replace alienated subjectivity with fantasies of identity and teleology. They facilitate social cohesion by obscuring antisocial aspects of psychic life, with the death drive being the best example. Edelman sees our civic freedoms as increasingly eclipsed by the political privilege of the figural Child. Because contemporary politics, regardless of affiliation, is deeply invested in progressive, teleological futurities, and because (non-reproductive) queerness presents an apocalyptic threat to these teleologies, the queerness modeled by the antisocial thesis can serve as a corrective tonic against this brand of political rhetoric. Queers should, Edelman argues, embrace the negative space they inhabit in relation to the visual and linguistic rhetoric of this constructed—and not actual—reproductive futurity.

There are some natural critiques to queer negativity arising from an increasingly liberalized US American society and an increasingly liberalized definition of queerness. Theorists like Juana María Rodríguez have pointed out that, in fact, queer women raise a *lot* of children, including children of their own, children of relatives, and adopted children.⁵⁵ As adoption laws have changed across the country, it has become even more commonplace for queer women to adopt and raise children. The same is true for many gay men. The increasing

⁵³ Edelman, *ibid*, 11

⁵⁴ Edelman, *ibid*, 2

⁵⁵ Rodríguez, *Sexual Futures, Queer Gestures, and Other Latina Longings*, 39-41

acceptance of gay marriage and gay childrearing, called homonormativity, also undercuts the antisocial thesis in very pragmatic ways. One can no longer say without exception that queers have no investment in the figural Child. It is also true that as queerness has become socially acceptable more and more marginally queer people have claimed queer identities. It is now possible to encounter individuals in typical, suburban, heterosexual relationships and marriages, for example, who identify as queer. Others claim their asexual or polyamorous or even “demisexual” orientation as a kind of queer minoritarian status. On the queer dating scene, these pseudopsychological Latinate terms are bandied about like diagnoses. Still others have transitioned and now live passing lives in straight society. Most millennials have never lived in a culture where queerness was stigmatized—much less many acts of non-heteronormative sex punishable crimes in several US states. These individuals have never experienced queer attraction as something that sets them apart from the body politic. Their sexual orientation is, consequently, not necessarily something that need run counter to reproductive futurity.

Despite the fact that liberalization has initiated these marked libertarian and identitarian changes which significantly complicate both queer identities and queer politics, queer negativity still taps something very important about political rhetoric’s need for collective futurities, and reproductive futurity is an idea that appears over and over in my archive. Edelman makes no effort to distinguish, as I have done in the preceding sections, between apocalyptic narratives, which typically conclude with a *deux-ex-machina* reset that restores the world of Man, and post-apocalyptic narratives which resist reinvestment in humanism. Edelman understands queerness, and in particular the *jouissance* of non-reproductive gay sex and its proximity to annihilation and the death drive, as an apocalyptic element which runs counter to the positivist, teleological

futurities offered by political rhetoric.⁵⁶ In post-apocalyptic narrative—and in end of the world dystopia in particular—queer negativity tends to inhabit an interstitial space between full investment in humanism and an embrace of the nonhuman posthuman. It often arises as a kind of nostalgia for culture or a turning back toward the humanist past that effects a non-reproductive futurity, a full-stop historical ending of any narrative originating in the human.

Another figure particularly relevant to the role of queer negativity in end of the world dystopia is Edelman's concept of the "*sinthomosexual*." The *sinthomosexual* is culture's scapegoated white male homosexual who embodies all the cultural and capitalist trappings of the world of Man, yet repudiates reproductive futurity.⁵⁷ Because Edelman is focused only on the *negative potential* of his critique, its effect in relation to humanism, he does not acknowledge or situate non-Child characters who figure futurity *because of* their otherness, their definitional exclusion from the human. Edelman seems to believe that reproductive futurity is the only kind of futurity. It could be argued that he sees queer negativity so clearly precisely because he cannot see beyond the humanist project. In Chapter 1 I explore how end of the world dystopia does precisely this. Whereas the *sinthomosexual* figures culture/Man without futurity/life, the survivors of end of the world dystopia figure futurity/life without culture/Man. But end of the world dystopia offers these alternative futurities by engaging with nonhuman agents. Telos *can* be restored, these narratives tell us, but only when we relinquish the human. In Chapter 1's exploration of *Xenogenesis* and *Alien Resurrection* I show how queer negativity arises, in end of the world dystopia, when the narratives *turn away* from the nonhuman. Lilith Iyapo and other humans who mate, in Octavia Butler's *Xenogenesis*, with ooloi achieve some degree of

⁵⁶ The fact that I need to qualify here that I am speaking only of *non-reproductive* gay sex is another indication of how much our culture has changed since *No Future* was written.

⁵⁷ Edelman, *No Future*, 33-50

reproductive futurity, but at the grave cost of joining nonhuman families and bearing nonhuman children. The conclusion of *Alien Resurrection*, by contrast, turns away from xenomorph hybridity to reinvest in the humanist project. The result is two crip gay couples, Call with Ripley 8 and Vriess with Johner, on a desecrated Earth: the turn back to humanity means the resurrection of queer negativity.

Edelman's theorization of reproductive futurity and his elaboration of the *sinthomosexual* depend heavily on his understanding of the Lacanian Real. Based on my education in the sciences, I know that there are in fact few real boundaries between Culture and Nature. I thus find Lacan's work on the Real to be a rather convoluted way of articulating a division that is in fact only psychic, and consequently it is difficult for me to believe in the Real—since my preference would be simply for people to change their understandings and thus modify their sense of (fear of?) what lies outside of Culture. What I find temptingly useful about the Real, however, is that Edelman associates it with horror and the loss of self brought about by intense sexual ecstasy, what Edelman calls *jouissance*. I will explore definitions of horror in greater detail in Chapter 3, but I will simply say for now that it is extremely difficult to distinguish between the horror and loss of self brought on by encounters with the Real and the horror and loss of self—what I will elsewhere call enstrangement—brought on by encounters with nonhumans which figure or signal the end of Man. This will be notably apparent in Chapter 3's exploration of horror as it appears in H.P. Lovecraft's "The Call of Cthulhu," *Zone One*, and *Southern Reach Trilogy*. My analysis makes very little recourse to psychoanalytic theories, and I am not in any sense a Lacanian scholar, but from a pragmatic standpoint the Real could be described as simply the nonhuman outside to the socially and psychically constructed world of Man.

To summarize, I have pointed to both queer negativity and a critique of posthumanism originating in Black studies as providing important theoretical scaffolding for this project. Zakkiyah Iman Jackson comprehends and articulates the fact that a movement outside the human is always a movement towards human populations excluded from the definition of Man. Queer negativity comprehends that teleological narratives which leverage reproduction and reproductive sex are instrumental to Man's continued production of and faith in the future. And Edelman's use of the Lacanian Real lays bare links between the horror of the Real, the horror of the end of Man, and the horror of encounters with the nonhuman. Both theories help to situate and frame my argument.

What would it mean to really let go of our attachments to the human, wounded or not? Some would say that it cannot be imagined, that the human imagination is limited by the phenomenology of human existence. I disagree. We have limitations, surely, but we, as humanists who constantly celebrate human capacity and human imagination, look a bit hypocritical if we say that we can't possibly imagine the nonhuman, or at the very least the point at which the human cedes to or converges with the nonhuman. End of the world dystopia attempts precisely this. In the subsequent section, I map my argument over the course of three chapters.

Mapping the Intervention

In the preceding sections, I explored contemporary narrative forms like climate fiction, the American disaster film, and zombie apocalypse to argue for the rise of a new subgenre: end of the world dystopia. I made distinctions between post-apocalyptic narrative and apocalyptic narrative by examining apocalypse's historical links to, in particular, the moral cleansing of the American jeremiad, and argue that post-apocalyptic narrative's relationship to moral cleansing

sets it apart from apocalyptic narrative and expresses a new and far more cynical set of beliefs about human hegemony and the world of Man. End of the world dystopia is the subset of post-apocalyptic narrative which takes seriously not only the possibility of the end of Man but the rise, beyond the end of Man, of entirely nonhuman lifeforms and ways of living.

I also, for the purposes of this project, define a pragmatic if somewhat historically adumbrated definition of humanism and outline some lines of thinking in posthumanism which relate to the overall logic of my project. My conclusion is that, while posthumanism is emphatic in complicating the boundaries of the human body and human culture, it is not yet very good at turning away from the human and the humanist project. Its critique is one made for the purposes of improving, rather than doing away with, humanism—usually by making its exclusionary boundaries more inclusive. This applies, as well, to Black studies critiques of posthumanism. Concerns about the exclusionary definition of Man are well-founded, and my archive reinforces the idea that a movement towards the nonhuman is also a movement toward those humans historically excluded from Man. But it seems that these critiques are no better situated to help us think about the very real possibility of truly nonhuman futures beyond the end of Man. There are very real political reasons for these shortcomings: any critique with the ultimate goal of advancing a human rights agenda would be undermining its own claims by attesting to or embracing a figural affinity between nonhumans and humans definitionally excluded from the category of Man. Queer negativity is the one exception in its willingness to celebrate and leverage the apocalyptic nature of non-reproductive sexualities. But even in the case of the antisocial thesis, the ultimate political goal is increased liberalization of human cultures. The *sinthomosexual* is, I argue, a pro-cultural figure who excoriates reproductive futurity only. End of the world dystopia, by contrast, openly and enthusiastically explores the prospect—made ever

more real by the eventualities of anthropogenic climate change—of nonhuman futures after the end of Man.

The subsequent chapters of this project explore an archive of end of the world dystopia within the context of queer theory, Black studies, and horror. Chapter 1, “‘Your Children Will Know Us, but You Never Will’: Xenomorphs, *Xenogenesis*, and (Queer) Futurity at the End of Man,” uses Octavia Butler’s *Xenogenesis Trilogy*, consisting of novels *Lilith’s Brood*, *Adulthood Rites*, and *Imago*) and the Jean-Pierre Jeunet’s *Alien Resurrection* to establish the conventions of end of the world dystopia. This chapter also applies queer negativity to end of the world dystopian narrative, finding in the conclusion of *Alien Resurrection* a turning back toward the human which coheres with the pro-cultural, non-reproductive space of the *sinthomosexual*. By contrast, Butler’s *Xenogenesis Trilogy* offers three diverse and entirely different futures brought about by a cruelly queering process in which humans are bred with an alien species called the Oankali. I propose “the estranged” as an alternative to the *sinthomosexual*, a figure which represents not a nostalgic, pro-cultural, non-reproductive turning back toward the world of Man but a turning away. This figure is marked by experiences of enstrangement: a *jouissance*-like but often horrific experience of loss of self which usually includes bodily changes. From the estranged, nonhuman futures proliferate. Fecund not by fertilization but by penetration and colonization of the nonhuman, characters who undergo enstrangement are often marked by sexuality, race, or ability as inhabiting the margins of the human.

Chapter 2, “Because You ‘Can’t Fix What’s Broken’: End of the World Dystopia and the Black Posthuman in *M Archive* and *Fast Color*” takes with utmost sincerity Zakkiyah Imam Jackson’s insight that a movement toward the nonhuman is a movement towards Blackness. *M Archive*, a poetic, poly-vocal future historical account of the end of Man by Alexis Pauline

Gumbs, contains multiple accounts of that end. Anthropogenic climate change gives rise to transformation of Black humans into rooted, plantlike organisms, airborne, flying organisms, organisms adapted to underground caves, and organisms adapted to the deep ocean. The 2020 film *Fast Color* is a superhero origin film set in drought-stricken panhandle Texas, in which a hereditary line of Black women who have long been in hiding because of their telekinetic powers is hunted by a team of scientists in search of solutions to the drought. This chapter applies the work of Sylvia Wynter and Hortense Spillers, elaborating a critique of the exclusionary definition of Man which, when combined with ideas about global capital and liberalization elaborated by Jean Baudrillard and Ian Bacom suggest that—at least for the purposes of this archive—Black women’s vestibularity to culture is not a bug but a feature. Despite the obvious links between the transatlantic slave trade and global capital, however, these works problematize contemporary affective attachments to the slave past. I coin the term “autopornotroping” to explain the frequent allusions *Fast Color* makes to slave narrative, incorporating Aida Levy-Hussen’s thought on African-American fiction and Wendy Brown’s concept of “wounded attachments” to show how these works disinvest from the possibility of reparation, ultimately turning away from the slave past and the conventions of the slave narrative and proliferating futures wherever they join with the nonhuman.

Chapter 3, “‘Nothing Monstrous Existed Here’: Horror at End of the World,” takes up the question of nonhuman futurities in the context of posthumanism’s aversion to horror. Building on Donna Haraway’s disavowal of H.P. Lovecraft’s tentacled monster Cthulhu as a “misogynist racial-nightmare monster,” this chapter attends to the indubitable presence of horror in the end of Man and open encounters with the nonhuman.⁵⁸ This chapter revisits “The Call of Cthulhu” to

⁵⁸ Haraway, *Staying with the Trouble*, 101

identify and theorize an affective state which I am calling “gestural whiteness,” a bodily horror, in response to the prospect of the end of Man, expressed as an inability to think, look, or speak. This affective state is found not only in early examples of science fiction but also in contemporary works like Colson Whitehead’s zombie apocalypse novel *Zone One* and Jeff VanderMeer’s bio-horror *Southern Reach Trilogy*, consisting of novels *Annihilation*, *Authority*, and *Acceptance*. While in “The Call of Cthulhu” gestural whiteness is the primary affective state of the increasingly agitated narrator, in *Zone One* and the novels of *Southern Reach Trilogy* it is characters (or perhaps more accurately, caricatures) expressing gestural whiteness—characters who cannot bear enstrangement, who cannot look openly on the nonhuman or face the end of Man—who will not survive. This chapter also leverages theories of horror elaborated by Robin Wood and Talal Asad to show how horror is linked to enstrangement and the nonhuman. This elaboration is applied, in particular, through extensive characterological explorations of enstrangement and the estranged in VanderMeer’s *Southern Reach Trilogy*.

In the conclusion, I consider the distance from here to there, thinking through what a less anthropocentric viewpoint might mean for both science and the humanities. I argue that the way in which we apply scientific research in the humanities—and even the way in which we use scientific concepts in casual speech—affects the human present and possibly adumbrates the potential for humans to take a part in nonhuman futures beyond the end of Man. I argue for specificity, for viewpoints situated in both human and deep time, and a scientific rigor and impartiality in applying scientific research to humanities scholarship. I also share perspectives common in the natural sciences and attempt to articulate the kinds of bi-temporal ethics we need in order to not sabotage future life—or, at the very least, to sabotage it less.

There is a great deal of optimism in most humanities work about anthropogenic climate change. Optimism which is, relative to climate change data, ill-founded at best. It comes in part, I think, from the obvious problem which abandoning the humanist project—even for a minute—presents to scholars working in the humanities. The progressive understanding of human history which many of us hold, with its implication that the humanist project is never complete, implies that it is unethical ever to pause in advocating for change, and there is very little separation, increasingly less and less separation, between personally held beliefs about human rights and professional scholarship. When I consider these contradictions I am reminded of the colonized humans who give voice to the protomolecule, in Mark Fergus and Hawk Ostby's television adaptation of James A. Corey's *The Expanse*. "Can't stop the work," it utters, flatly, in response to any barrier, from the mouths of human hosts often altered to near-inrecognizability. The protomolecule appropriates everything within its reach, colonizing human bodies and minds and all manner of technologies, to build an interstellar gate which links Earth's solar system to hundreds of remote planetary systems, changing human civilization forever. While we have not yet colonized, much less visited Mars, and the age of ice mining and "Belters" depicted in *The Expanse* is, if possible, still far in the future, there are large, nonhuman forces at play right now in our world. The best course of action in the presence of such forces, even when we have very little control, is to stop the work, to acknowledge these forces, and to reconsider our labors and values in the new context.

This project attempts to address a significant gap in posthuman scholarship by earnestly accounting for the personally and culturally horrific loss of self and world which becoming nonhuman would actually entail. It has recourse to a rich, growing, popular, and largely un-analyzed archive of end of the world dystopia. Because horror arises when humans do inhuman

things or when nonhumans assert their agency, truly accounting for the posthuman means facing and accounting for horror. It is too late now to stop anthropogenic climate change, and humans will, in turn, be changed, both by environmental affects on gene expression and by plain old Darwinian population dynamics. Horror will be, whether humanities scholars want to admit it or not, a part of the end of the Anthropocene.

“Maybe,” writes Haraway, “but only maybe [...] flourishing for rich multispecies assemblages that include people will be possible.”⁵⁹ This project is addressed to the far more plausible “maybe not:” the futures where, as in Octavia Butler’s *Xenogenesis*, “people” is a replacement for and not a synonym of “human;” the futures where the world of Man is brought to its knees by powerful nonhuman agents; the futures which, as with Area X, depict “multispecies assemblage” in its most graphic, destructive, nonhuman sense. Maybe, this project dares to state, a future like that is OK. Maybe our next task is to find the courage to face it.

⁵⁹ Haraway, *ibid*, 100

**“Your Children Will Know Us, but You Never Will”:
Xenomorphs, *Xenogenesis*, and (Queer) Futurity at the End of
Man**

Tiny Tim survives at our expense in a
culture that always sustains itself
on the threat that he might die.
~ Lee Edelman, *No Future*

it was what the Black speculative feminists
called “the Butlerian moment.” the more
musical among them said “Octavian Overture.”
that moment when it was time to leave.
when the true others finally arrived.
~ Alexis Pauline Gumbs, *M Archive*

Kill... me...
~ Ripley 7, *Alien Resurrection*

Jodahs and Aaor have a problem. Like all Oankali ooloi, they hunger for mates. In this case, human mates and human contact. But their unmastered ooloi ability—to “taste” and manipulate genetic material—causes them to trigger malignant growths in themselves and other organisms they touch. Their bodies are problematically changeable, acquiring webbed feet in wet environs and scales in dry. In the final book of Octavia Butler’s *Xenogenesis Trilogy*, their mother Lilith Iyapo and her family struggle to keep Jodahs and Aaor alive, caught between violent communities of sterilized humans and an Oankali consensus that the youngsters are dangerous and should live out their lives on the Oankali ship orbiting Earth.

The Oankali discover Earth shortly after most humans have died in a global nuclear holocaust. They save the humans they can find but, in exchange, require that these humans “trade” with them, joining Oankali families and bearing hybrid children. In these families a fifth parent of a unique neuter gender called “ooloi” “constructs” each child using a combination of traits from the four male and female parents, two human and two Oankali. These “construct”

children have an anomalous appearance until they enter metamorphosis in their late teens, at which time their bodies acquire an adult configuration of sensory and reproductive organs. Normally, Ooloi control the gender of each construct child. But now Jodahs and Aaor have entered metamorphosis and are becoming something dangerous and unexpected: they are becoming ooloi.

I open with this context about the Oankali children constructed by the ooloi Nikanj and born to Lilith Iyapo because they are a unique leaping-off point for thinking about nonhuman alterity, post-apocalyptic futures, and the utility of the posthuman in current minoritarian discourse. Butler's *Xenogenesis Trilogy* is both my earliest example of the post-apocalyptic genre I am calling end of the world dystopia and the work most directly addressed to the unique interplay of horror, survival, transformation, and futurity common to the genre. When in contact with potential human mates, the bodies of Jodahs and Aaor stabilize. When allowed to use their sensory arms to explore and heal human bodies, their work is flawless and does not introduce malignant growths. The heretofore unmanageable plasticity of their bodies hones in on the preferences of potential human mates. While healing a Brazilian man named João, for example, Jodahs's body takes on a darker skin and hair color, and acquires breasts and hips that João finds attractive. Unlike the jarring appearance of previous generations of Oankali—which Lilith initially finds so disturbing that she digs her fingernails into the flesh of her palm in order to manage her revulsion at the appearance of Nikanj's parent Jdhaya—this plastic physiology leaves Jodahs and Aaor uniquely suited to seduce humans. And the siblings have another thing their parent Nikanj and its generation will never have: an innate understanding of the human need for independence and agency.

Eventually, desperate for mates, Jodahs journeys away from its family's camp and finds Thomás and Jesusa, fertile human siblings whose affliction with neurofibromatosis makes them very willing to become its mates. Aaor is not so lucky. Stranded at camp and starved of human contact, it grows increasingly despondent. It wanders into the swamps nearby and, over days, loses its shape entirely:

It changed radically: grew fur again, lost it, developed scales, lost them, developed something very like tree bark, lost that, then changed completely, lost its limbs, and went into a tributary of our river. When it realized it could not force itself back to Human or Oankali form, could not even become a creature of the land again, it swam home. It swam in the river near our cabin for three days before anyone realized what it was. Even its scent had changed.⁶⁰

Jodahs and Aaor might be uniquely well-suited to mate with humans, but they are also uniquely vulnerable when denied access to potential mates. As Aaor's dissolution conveys, this first generation of human/Oankali ooloi is so dependent upon humans that without human contact they can lose their form entirely. *Imago*, the third book of the *Xenogenesis Trilogy*, is narrated by Jodahs and focuses on the experience of these two truly posthuman characters. Their physiological need for human contact signals a radical departure from previous Oankali trades, suggesting that humans will, despite this colonization of their bodies and planet, ultimately effect marked changes in Oankali biology and culture. *Imago* ends as this new, hybrid species is learning to live with and acculturate its interdependencies—a deep investment in the nonhuman which results in a proliferation of futures.

As outlined in the introduction, this project elaborates a three-part argument which includes: first, a high-level assertion that nonhumans and the alterity of nonhuman existence present a pathway to new and necessary kinds of futures beyond the Anthropocene; second, in

⁶⁰ Butler, *Imago*, Section III, Chapter 2

following this assertion, an argument for the continued utility of the posthuman (emphasizing the literally nonhuman) in discourses addressed to queer theory and Black studies; and third, the definition of a unique genre of post-apocalyptic narrative, called end of the world dystopia, which imagines and often celebrates what comes after the end of Man. This chapter advances these three arguments within the context of queer futurity. Here I take up two early examples of end of the world dystopia, Octavia Butler's *Xenogenesis Trilogy* and Jean-Pierre Jeunet's *Alien Resurrection* (1997), to explore the key characteristics of end of the world dystopia. Starting from Lee Edelman's theory of reproductive futurism and the figural child, I identify sites of linkage between the antisocial thesis in queer theory and the nonhuman posthuman. I also point out how end of the world dystopia goes further, theorizing the figure of the estranged as a state of posthuman alterity *beyond* Edelman's *sinthomosexual*. Unlike the *sinthomosexual* which, while antisocial, also looks nostalgically back on human cultures, the estranged is psychologically and often physically transformed through contacts with the nonhuman. Rather than turning back toward human cultures, the estranged is a figure from which new posthuman futures and worlds proliferate. My point that the nonhuman posthuman and its states of estrangement lie just beyond the boundaries of queer negativity is borne out in the ultimate differences between *Xenogenesis* and *Alien Resurrection*. Despite their many similarities, *Alien Resurrection* turns back nostalgically toward the human past, ending with both characters and plot in a state of queer negativity. *Xenogenesis Trilogy*, by contrast, embraces the nonhuman posthuman, concluding with a proliferation of unique new nonhuman futures—and even new worlds.

The (Actual) Stakes of the (Actually Horrific) Chulhucene: Why Nonhumans at the End of the World

While not as profoundly changeable as Aaor's body, the human body exhibits a certain degree of plasticity. Even as adults, our cells make constant alterations to gene expression in response to environmental inputs. The study of the mechanisms that bring about these changes is called epigenetics. Evidence of epigenetic change shows us that organisms manifest material, physiological changes in response to their environments, and these responses are sometimes passed on to their descendants. These changes are not behavioral, and they are not voluntary.

Some, such as Catherine Malabou, choose to interpret epigenetic change as evidence of agency and even Foucaultian resistance within the tissues of oppressed individuals, though this kind of resistance could in no way be attributed to actual intellectual resistance or even intellect. In fact, epigenetic changes in the human body are as involuntary as breathing, controllable by conscious action or intellect in only the most abstract secondary and tertiary ways. This type of phenomenon resembles far more an unthinking or animal body tracking and responding to its environment than conscious action, much less resistance. Samantha Frost hews far closer to the scientific consensus when she uses evidence of epigenetic change to argue for a new politics around constructed human habitats. According to Frost, we are "biocultural creatures" that are "cultured" both in development and over our life spans by our "biocultural habitats."⁶¹ The meshwork of bioculture is so intricate, according to Frost, that it would be nearly impossible to untangle. Commercial and residential zoning informed by racism and classism, the effect of international financial exchange on local job markets and environmental pollution, intergenerational variations in access to food, health care, and education are all written into

⁶¹ Frost, *Biocultural Creatures*, 8

human bodies and often inherited by subsequent generations.⁶² We are, as a result, both ethically and corporeally accountable to the biocultures we inherit and modify. If we know that the spaces we create shape us absolutely, then we absolutely must create healthier spaces.⁶³

These points express important moral concerns around epigenetic changes and the environmental conditions which drive them (and surely we have catalogued only the tiniest fraction of these phenomena). If humans were capable of ethical collective action we would make changes to human food and infrastructure policy to reduce negative epigenetic change. As this is unlikely, my project is addressed to the changes that will occur because we take little or no collective action. Over time spans approaching but not necessarily equivalent to geological time, on a planet also undergoing significant alteration, epigenetic change suggests a species perpetually in the process of becoming something else—of becoming, to put it perhaps more poetically, unrecognizable to ourselves.

If humans were ever good at discerning or mitigating the effects our environments have on our biology, there is very little evidence that we can effectively do so now. We live in a world both markedly and increasingly altered by anthropogenic climate change, a world of superfund sites, choking algal blooms, and interior spaces flooded with endocrine disruptors. Even new “clean” solar technologies will come at the great environmental cost of pollution from mineral extraction. If we survive at all, we will be changed by the environments we have produced, and those changes will, ultimately, over a long, long time, result in something other than what we recognize as human.

⁶² Frost, *ibid*, p. 156

⁶³ Frost, *ibid*, 156-9

I am not the first to have made this point. Other scholars, Donna Haraway among them, have connected the prospect of posthuman futurity to the eventualities associated with anthropogenic climate change. I may, however, be the first to openly embrace the horrific nature of this undoing. Haraway is careful to disavow any allusion to Lovecraft's "Call of Cthulu" in labeling her version of the post-Anthropocene era the "Chthulucene." The name refers to a kind of spider, she explains, rather than, "SF writer H.P. Lovecraft's misogynist racial-nightmare monster Chulhu."⁶⁴ This is, in the short-term, certainly the properly moral humanist perspective, but I am not sure that it stems from a fair reading of "The Call of Cthulu," nor that it realistically matches the eventuality. I am not sure that becoming something else is ever comfortable or pleasant. At any rate, that is not the truth to which the works in my archive attest. If we are in the process of becoming other and that process is triggered by or involves a loss of the world as defined and constructed by Man, then it is only nonhumans who can show us the way through chaos and destruction to that future.

"Bah Humbug:" The Antisocial Thesis, *Sinthomosexuality*, and Queer Temporality's Links to the Nonhuman Posthuman

When Lee Edelman and José Esteban Muñoz addressed themselves to queer futurity, they did so from within a larger queer theoretical context which had already noted the apocalyptic nature of gay and lesbian activist rhetoric. In the introduction, I discussed how Christian narratives, and especially the American jeremiad, may have contributed to the apocalyptic tone in environmental texts of the 1960s and 70s. As early as the 1990s, theorists began to be concerned about a loss of self-identified apocalypticism in queer political discourse. Environmentalists of this era, as noted in the introduction, deployed apocalypticism in untransparently moralizing ways which mirrored

⁶⁴ Haraway, "Anthropocene, Capitalocene", 160

its use in religious texts. Gay and lesbian theorists, by contrast, sought to embrace and leverage shame, guilt, and apocalypticism in the face of the increasing acceptance of gay and lesbian lifestyles.

Both Leo Bersani, in *Homos*, and Michael Warner, in *The Trouble with Normal*, described the increasing acceptance of homosexuality and the self-policing practiced by homosexuals around a new, queer identity. Bersani, in 1995, characterized this new identity as desexualized and “delineating political rather than erotic tendencies.”⁶⁵ In a keen and contradictory application of Foucault, Bersani pointed to the growing political power in the queer community itself, worrying that the “stabilizing” of any identity, no matter how radical its origins, “[would be] inherently a disciplinary project.”⁶⁶ Queers in pursuit of political access, he implied, had begun to police themselves. Interestingly, Bersani historicized this transition to self-policing legitimacy as a move away from apocalyptic activism:

having de-gayed themselves, gays melt into the culture they like to think of themselves as undermining. Or, having “realistically” abandoned what [Stephen Seisman] calls a “millennial vision” of domination’s demise, we resign ourselves to the micropolitics of [...] participatory democracy and social justice⁶⁷

The loss of apocalypticism in gay rights rhetoric signaled, for Bersani, a dangerous new compromise toward—or even complicity with—heteronormativity, a complicity which came to be called homonormativity. For Bersani, homonormativity could only mean self-erasure: “de-gayng gayness can only fortify homophobic impression; it accomplishes in its own way the principal aim of homophobia [...] The consequence of self-erasure is [...] self-erasure” (5). In

⁶⁵ Bersani, *Homos*, 2

⁶⁶ Bersani, *ibid*, 3

⁶⁷ Bersani, *ibid*, 5

keeping with his own attachments to gay male eros, Bersani proposed desire as a way of accessing and reasserting gay difference and avoiding self-erasure.⁶⁸

In 1999, Michael Warner made his own contribution to the growing polemic against homonormativity by focusing specifically on the legitimacy offered by gay marriage. Warner, on more or less the same grounds as Bersani, argued against gay normalcy, and very specifically against gay marriage. In a move similarly focused, it might be argued, on the charged nature of gay male sex at the time, Warner argued that gays should instead embrace shame, since it is the politics of sexual shame which both stigmatizes homosexuality and motivates gay rights movements to disavow gay sexuality.⁶⁹ These tenets outlined in the work of Bersani and Warner—both featuring an identity formulated in opposition or negation and built around what would traditionally be categorized as antisocial behaviors—came to be called the antisocial thesis in queer theory.

Lee Edelman advances this antisocial thesis with a uniquely temporal argument that progressive futurities, whether conservative or liberal, mobilize a “figural Child,” linear time’s future ideal citizen. Edelman calls this way of framing political debate “reproductive futurism.”⁷⁰ According to Edelman, “the child has come to embody for us the telos of the social order and come to be seen as the one for whom that order is held in perpetual trust.”⁷¹ Edelman then justifies his claims in part by pointing to the apocalypticism manifest in environmental discourse. Both conservative and liberal activists, he argues, from anti-abortion activists to environmentalists, make their appeals in the name of the figural Child.

⁶⁸ Bersani, *ibid*, 7

⁶⁹ Warner, *The Trouble with Normal*, viii

⁷⁰ Edelman, *No Future*, 2

⁷¹ Edelman, *ibid*, 11

According to Edelman, reproductive futurism and its political discourses buttress against the Lacanian “Real,” that which lies outside of the social order, articulating and reinforcing “fantasies structurally necessary in order to maintain” social reality. Such politics replace alienated subjectivity with fantasies of identity and teleology. They facilitate social cohesion by obscuring the antisocial drives that underlie cultural constructs, especially the death drive. Edelman’s discourse does not ultimately favor apocalypse, but like Bersani and Warner he recognizes the apocalyptic potential of the antisocial thesis, the fact that the Child “shields [society] against the persistent threat of apocalypse.”⁷² Edelman sees queer civic freedoms as increasingly eclipsed by the political privilege of the figural Child, and he argues that the queerness modeled by the antisocial thesis can serve as a corrective tonic against this political coercion.

Edelman also seems to intuitively comprehend the link between reproductive futurism, horror, apocalyptic and post-apocalyptic narrative. He references the post-apocalyptic film *Children of Men* (2006) in elaborating reproductive futurism and the figural Child, and in a subsequent chapter conducts an analysis of Alfred Hitchcock’s *The Birds* (1963), a horror film whose portrayal of the natural world’s sudden, murderous, *en masse* avian onslaught against its human characters suggests a nihilistic or at the very least ambivalent perspective with regards to continued human existence.

All cultural forms of futurism require “fantasy,” by which Edelman means an unrealistically and symbolically reinforced sense of continuance of meaning which extends one’s existence beyond one’s death. This collective fantasy imbues our erratic and unjust reality with “fictional coherence and stability.” It offers “a reality guaranteed, not threatened, by time,

⁷² Edelman, *ibid*, 18

sustained by the certainty that a ‘course of events’ is bound to continue its course in due course long after we are gone.”⁷³ Edelman also draws from Lacan the concept of the *sinthome*, or symptom. This *sinthome* is a complication of individual subjectivity, an itch borne of a subject’s singularity, vulnerability, and access to *jouissance* which presents an inherent conflict to fantasy and futurism.⁷⁴ The *sinthome* is and insists upon itself as non-Symbolic, unrepresentable: as such it carries and permits “nothing of meaning.”⁷⁵

By these mechanisms, the *sinthome* threatens the coherence of fantasy and the symbolic prospects of futurism. Consequently, it is projected onto what Edelman terms the *sinthomosexual*. *Sinthomosexuality* is “the site where the fantasy of futurism confronts the insistence of a *jouissance* that rends it precisely by rendering it in relation to [the death] drive.”⁷⁶ Because the *sinthome* and its affinity to the death drive is the reason we employ fantasy it is, in a sense, what drives the repetitive production of the social order. And this cannot be admitted to be true.⁷⁷ Before homonormativity, homosexuality is what carried this burden of the unthinkable in our culture. And while a great deal has changed legislatively—on issues like gay marriage—since *No Future* was published I believe it is still accurate to say that gay male sex remains, for most, unthinkable). Homosexuality is, Edelman argues, a “threat to the logic of thought itself” insofar as it figures the availability of an unthinkable *jouissance* that would put an end to fantasy—and, with it, to futurity—by reducing the production of meaning via fantasy’s promise

⁷³ Edelman, *ibid*, 34

⁷⁴ Edelman, *ibid*, 35

⁷⁵ Edelman, *ibid*, 35

⁷⁶ Edelman, *ibid*, 38

⁷⁷ Edelman, *ibid*, 45

of continuity to the meaningless, anxious reiteration of the [death] drive.⁷⁸ I have reviewed so much of Edelman's work on the *sinthomosexual* because the figure is counterpoint to the figure of the estranged which is common to end of the world dystopia. In a subsequent section I will explore how these artifacts access leveraging the nonhuman to produce futures beyond the end of Man, necessitating the experiences of estrangement most survivors undergo.

Some theorists have contested Edelman on the grounds that queers *do* reproduce. However, Edelman is concerned with rhetoric and representation, not actual reproduction, and if the social order obscures the fact that queers do reproduce, this merely reinforces his point. Futurism produces a sense of solidity and predictability which allows the projection of self forward in time. It “generates generational succession, temporality, and narrative sequence, not toward the end of enabling change, but, instead, of perpetuating sameness, of turning back time to assure repetition—to assure a logic of semblance (more precisely: a logic of metaphoricity).”⁷⁹ This is undercut by the problem of the *sinthome*, the inherent connection of the self to the death drive. The social order then projects this *sinthome* onto those whose nonreproductive sexual practices hold no promise for projection of self into future. Edelman argues further that futurism's mechanisms of repetition, obsession, and cyclical temporality also make reproductive futurism in particular an aesthetic dead end, a “calcification of form.”⁸⁰ This sense of an aesthetic dead end mirrors, in my opinion, the *literal* dead ends, the time loops and apocalyptic resets in apocalyptic narrative, which I described in the introduction. End of the world dystopias,

⁷⁸ Edelman, *ibid*, 38

⁷⁹ Edelman, *ibid*, 60

⁸⁰ Edelman, *ibid*, 47-8

according to this formulaic, produce new worlds by letting go by abandoning reproductive futurism and all teleologies linked to the perpetuation of Man.

Edelman's primary interlocutor, in elaborating and confronting teleological models enforced by a heteronormative social order, is José Esteban Muñoz. In *Cruising Utopia*, Muñoz draws on utopian aesthetic theory to map his own queer futurity, which sits opposed, in his model, to the predominant linear teleology he calls "straight time." Muñoz builds on the concept of "utopian feelings" as articulated by Ernst Bloch, claiming that queer art in particular can evoke this affective state.⁸¹ According to Muñoz, utopian feelings provide "an affective enclave in the present that staves off the sense of 'bad feelings' that mark the affective disjuncture of being queer in straight time." For Muñoz, queer time is marked by a sense of timelessness, a "stepping out of the linearity of straight time." He repeatedly invokes queer aesthetics as suggesting a "not yet here," a "highly ephemeral ontological field that can be characterized as doing in futurity."⁸²

Muñoz, like Carolyn Dinshaw, perceives of queer time as cyclical, static, and repetitive.⁸³ His description of queer temporality as a "then that disrupts the tyranny of the now," seems at first to conflict with Edelman's sense of the heteronormative social order's futurity as compulsively repetitive and self-iterative. Muñoz claims as much: "I respond to Edelman's assertion that the future is the province of the child and therefore not for the queers by arguing that queerness is primarily about futurity and hope."⁸⁴

⁸¹ Muñoz, *Cruising Utopia*, 9

⁸² Muñoz, *ibid*, 24-6

⁸³ Dinshaw, *How Soon Is Now?*, 5, 7, 10

⁸⁴ Muñoz, *Cruising Utopia*, 11

In his defense, Edelman never says that the future is *not* for queers, he simply concerns himself with the political contingencies of the present. In response to Muñoz, it can be argued that the cyclical, static, and repetitive *are* identified by Edelman—as the *sinthome* which is projected *away* from heteronormative futurity and onto the homosexual in *constructing* the shared social sense of a linear temporality. So while their political relationship to queer aesthetics and queer time differs, these two theorists are not so diametrically opposed as subsequent engagements with their work suggest. Edelman argues for queers to embrace the relation to *jouissance*, the death drive, and the negation of reproductive potential in which they are placed by the social order. Muñoz locates and celebrates the utopian potential in this opposition to coercive collective futurity in queer aesthetics in particular. But both are, ultimately, responding to the same thing: the moral work queerness is asked to do to buttress a linear Western humanist futurity that is, ultimately, a construction. Edelman is more in touch with homosexuality’s apocalyptic potential; Muñoz prefers to understand this potential as utopian. Both theorists (rightly) perceive heteronormative temporality as linear and fraught with anxieties about its own continuance.

Also of particular relevance to this project is the fact that this sense of a linear Western hegemonic model of time coheres with Donna Haraway’s post-Anthropocene era, called the Chthulucene. Haraway describes this era as one of hybridity figured by serpentine or tentacled coiling. According to Haraway, the Chthulucene is “simultaneously about past presence and what is to come,” a “thick kind of ongoingness [...] not about embracing life over death [...] but about embracing the snaky ongoingness of earthly worlding in its pasts, presents, and futures.”⁸⁵ Haraway’s vision, importantly, links Edelman and Muñoz’s cyclical and repetitive temporal

⁸⁵ Haraway, “Interview by Juliana Fausto, Eduardo Viveiros de Castro, and Déborah Danowski.”

model with human/nonhuman hybridity. And this muscular interplay between the end of linear, Symbolic, or “straight” time and human/nonhuman hybridity is the nexus at which end of the world dystopia arises.

None of these theories, as it turns out, is perfectly predictive where the narratives in my archive are concerned. The future is indeed for queers—queer human/nonhuman hybrids, that is. But that queering is seldom a pleasant or liberatory experience, much less utopian. In Butler’s *Xenogenesis Trilogy*, human males in particular struggle with the queering control ooloi exert over their sexuality and independence. As human male João insists, even after Jodahs has regrown his broken and gangrenous leg, “Your kind and your Human whores are the cause of all our trouble! [...] You take men as though they were women!”⁸⁶

Ooloi are also driven, by their own biochemical impulses, to prevent their male and female human mates from touching one another. This is the case with Lilith, the main protagonist of *Dawn*, and her partner Joseph. Lilith is initially held captive on the Oankali ship *Chkahichdahk*, and coercively mated with the young ooloi Nikanj. Nikanj modifies her body during these matings, increasing her strength and response times to protect her from the violence of human males in the group she will awaken and train to survive on Earth. When Lilith takes a lover from among these men, a man named Joseph, Nikanj argues that it must modify Joseph as well, to protect him. The subsequent scene is the first depiction of a human pair having sex with (or through) an ooloi: Lilith and Joseph lie on either side of the Nikanj, a sensory arm penetrating the base of each human’s neck. Lilith feels desire for both Nikanj and Joseph at this point, and reaches across Nikanj for Joseph’s hand, to comfort him. But Nikanj is compelled by its biology

⁸⁶ Butler, *Imago*, Section II, Chapter 2

to prevent its mates from obtaining pleasure independent of itself. The ooloi stops her, saying, “No, only through me.”⁸⁷

Ooloi also alter the biochemistry of their human mates so that they are physically repulsed when attempting to touch one another—denying Lilith and Joseph the intimate touch that has long been an essential aspect of human contact and intimacy. In both *Adulthood Rites* and *Imago* “construct” children observe their human parents touching each others’ hair when attempting to provide comfort. This is all they can offer one another without an ooloi interlocutor.

Joseph is eventually killed by another man in the band of humans. After his death, in attempt to comfort her, Nikanj informs Lilith that it has made her pregnant using Joseph’s sperm. Thus Lilith and Joseph had sacrificed not only the ability to touch one another, but also any control over when and under what conditions they would reproduce. And, of course, Lilith’s children will not be human children but hybrid “constructs,” with sensory patches, tentacles, and a period of teenage metamorphosis in which they manifest more obviously Oankali features. In *Adulthood Rites*, Lilith’s son Akin convinces the Oankali to create a terraformed colony on Mars, where humans can try, once more, to create their own sustainable society—a concession to which the Oankali agree despite believing, and not without justification, that humans are inherently violent and destructive. The human experiment will try to rekindle itself on mars, but as a result of both humans’ nuclear holocaust and subsequent Oankali interventions, heteronormativity on Earth is, for all intents and purposes, a thing of the past.

What these various examples demonstrate is that Octavia Butler’s *Xenogenesis Trilogy* queers—but inhumanely. And inasmuch as there are no female-female-ooloi or male-male-ooloi

⁸⁷ Butler, *Dawn*, Section III, Chapter 6

pairings, it enforces heteronormativity just as much as it emasculates heterosexual males and bars intimate contact between human partners. There aren't even any queer *characters* in all three novels. It is possible that the Oankali found homosexuals to be an evolutionary aberration. It is also possible that Butler herself considered human homosexuality to be irrelevant to the narrative. Whatever the reason, the text is both one of the most profoundly queer science fiction narratives—with human/alien sex scenes that left, to say the very least, a marked impression on me when I first encountered them at 13—and essentially homophobic. Any honest reading of the *Trilogy* in light of queer futurity must acknowledge this contradiction. Explaining it requires the theorization of the estranged, an additional figure of alienation cast far outside the bounds of the social order.

In this section I have introduced the theoretical background for my engagement with and definition of the genre I am calling end of the world dystopia, outlining climactic, biological, and evolutionary reasons for exploring nonhuman posthuman futures. I have also detailed the links between the antisocial thesis in queer theory, its expression in queer futurity, and its relationship to apocalypticism in contemporary culture. In the subsequent section, I read Octavia Butler's *Xenogenesis Trilogy* as an early example of end of the world dystopia, outlining the key features of the subgenre and documenting Butler's unique engagement with nonhuman posthuman futurity from interviews and historical context.

“If you’re going to write science fiction”: Specificity, the Nonhuman, and the (Many) Queer Futurities of *Xenogenesis Trilogy*

As I have outlined in the introduction to this chapter, *Xenogenesis Trilogy* is the story of Lilith Iyapo and her human/Oankali offspring, all of whom struggle with self-determination and right action on an Earth radically altered first by nuclear holocaust and then by alien occupation. Lilith's children are the result of coerced mating with Oankali ooloi: they are explicitly

nonhuman and faced with the task of constructing new cultures which complement their hybrid nature. Akin, Jodahs, and Aaor each follow a unique path as they mature and give rise, in doing so, to wholly new futures and ways of living.

In this chapter, I consider both *Xenogenesis Trilogy* and *Alien Resurrection* as early entries to a subgenre of post-apocalyptic narrative that I call end of the world dystopia. End of the world dystopias increased in count and popularity concurrent with increasing social knowledge of and anxieties about anthropogenic climate change at the end of the twentieth century. These early entries, created after the end of the Cold War and the publication of *Silent Spring* but before Y6B, contain aesthetic and narrative conventions which persist in contemporary examples of the subgenre.⁸⁸

End of the world dystopia concerns itself with uninhabitable worlds, and in most cases these worlds are uninhabitable for one of two reasons: first, the worlds themselves are degraded to the point of being in some way unsurvivable; or, second, there are no humans left to inherit them. Works in this subgenre are unique among dystopias in that they look forward, in one way or another, to the end of the world. We engage these new narratives because we already live in societies which to no small degree resemble those which early dystopias like *1984* and *Fahrenheit 451* warned against. We engage them for the vicarious pleasure of watching a world where it is increasingly difficult to be or to do good, to live a meaningful or even relevant life, be destroyed. Works of end of the world dystopia share several other important features: they offer condemnations of the world of Man; they feature survivors in some way excluded (queer, crip, or nonwhite) from the human; they tell horrific stories of survival; they foreground states of

⁸⁸ On October 12, 1999, the global human population reached 6 billion.

phenomenological disorientation or dehumanization, what I call “enstrangement;” and they utilize nonhuman agents in order to articulate possible futures.

Both *Xenogenesis Trilogy* and *Alien Resurrection* return to a decimated Earth, and both works feature survivors who are explicitly or circumstantially queered. However, as I mention in the previous section, the kind of queer futurity offered in these narratives is neither the utopian one celebrated by José Esteban Muñoz nor the negativity articulated by Lee Edelman and others. For Lilith and the other human protagonists of *Xenogenesis*, queering is simply what one must acced to in order to survive and partake of any future at all. In *Xenogenesis*, this comes about as a result of the awakened humans released onto Earth having been serilized: the only way to have children is to mate with an ooloi, and those children will be “constructs,” expressing both human and Oankali traits.

Despite the many coercive aspects of this circumstance, it is the narrative’s introduction of nonhuman agents which produces so many futures over the course of the three novels: Lilith learns to live within an Oankali family on Earth; the Oankali ship *Chkahichdahk* will depart Earth in search of new species with which to “trade;” Akin has begun his Mars colony where humans, with their fertility restored, can attempt to create a humane, sustainable culture; and Jodahs and Aor plant their own seed ship in the mountains of South America, marking the origins of a new and newly interdependent human/Oankali way of life. In a subsequent section I will explore how *Alien Resurrection*, conversely, fails to produce new futures in exact proportion to its rejection of nonhumans and nonhuman hybridity. But even without *Alien Resurrection*’s contrasting example, it is clear that the four unique futures in *Xenogenesis* all stem from intimate engagements with nonhuman agents. In end of the world dystopia, that is, encounters with nonhuman agents are the set of conditions which delimit or diversify future worlds.

In many end of the world dystopias, this engagement with nonhuman agents is paired with a cynicism about or condemnation of Man. In *Xenogenesis* this critique of human activity is both implicit in the state of Earth when the Oankali arrive and explicitly articulated as what the Oankali believe to be a novel combination of human traits: few species they have encountered are both highly intelligent and socially hierarchical.⁸⁹ The Oankali value life and the continuation of life above all else. By their logic, this combination of intelligence and hierarchical social organization is so destructive, so likely to produce violence, murder, and mass death, that it would be unethical to allow humans to continue living and reproducing without intervention—without, that is, alteration. The “trade” of interbreeding offered to humans is, according to this logic, a way of saving or redeeming them from an inherent flaw. The sterilized humans, returned to Earth, do not necessarily prove the Oankali wrong: throughout *Xenogenesis* they exhibit their capacity for murderous violence with alacrity.

Up to this point I have focused on the plot of *Dawn*, *Childhood Rites*, and *Imago* in arguing for *Xenogenesis Trilogy* as an early and perhaps seminal entry of end of the world dystopia. But there are several other formal aspects of Butler’s trilogy which can be linked to this subgenre and its characteristics. In the subsequent section, I argue that formal aspects of the trilogy, including literary devices, characterization, and plot, shift the focus of the narrative from

⁸⁹ I am not sure how much research on the bonobo was available when Butler was writing these novels in the late 1980s, but the idea that humans are violent and hierarchical in nature by mammalian ancestry seems to be based on the characteristics of chimpanzees, and is undercut significantly by recent research on bonobos. Humans share approximately 98% of their DNA with chimpanzees, but we share the same amount of DNA with bonobos. Bonobos are a communitarian, female-dominant species. Male bonobos are physically larger than females, but they are never the highest-ranking figures in bonobo communities. Female-female bonds are strong among bonobos, and females often bond together to discipline or control aggressive males. Bonobos also engage in frequent, nonreproductive sexual exchanges, including homosexual encounters between females. They use sex to greet one another, to reduce conflict, and to maintain social cohesion. Bonobos are now too rare to observe in the wild, but as observed in captivity bonobo communities significantly undermine the claim that humans are destined by mammalian ancestry to be violently hierarchical. This aspect of the plot may be the rare case where Butler’s speculation no longer maps neatly onto current scientific consensus.

humans to nonhumans. These ideas are often presented through instances of enstrangement—particularly in the case of the novels’ original protagonist Lilith Iyapo.

The “Taste” of DNA: Form, Signification, and the Enstranged in *Xenogenesis*

“If you’re going to write science fiction,” Octavia Butler opined in a 2004 interview with Joshunda Sanders, “that means you’re using science and you’ll need to use it accurately, [to] speculate in ways that make sense.”⁹⁰ I believe that Butler’s statement is not so much an aesthetic preference as a formalist maxim: science fiction, in Butler’s opinion, must do its best to adhere to scientific consensus. The strategies chosen by Butler to meet this constraint reflect not only her own aesthetic preferences with regard to science fiction, but also more personal beliefs about history and heroism (particularly in the face of racial injustice).

Butler clearly respected her own maxim in writing *Xenogenesis* and other works. The trilogy’s nonhumans may be entirely fictional, but their morphologies and motivations are underwritten by well-researched and highly detailed biological realities. In her interview with Sanders, Butler suggests that the veracity of an author’s representation of reality increases the veracity an author’s speculation, that attending to scientific fact is, in a sense, a way of “doing right by” the world which creates and undergirds the spaces in which we pretend. I suspect that like Karen Barad, Paula Treichler, and Bruno Latour, Butler believed that there was an ethos to the incorporation nonhuman agents into human discourse.⁹¹

Several literary techniques comprise Butler’s adherence to this epistemological ethos. Where description is employed, it is thick description: even when closely associated with the

⁹⁰ Sanders, “Interview with Octavia Butler.”

⁹¹ Barad, *Meeting the Universe Halfway*, 23; Treichler, *How to Have Theory in an Epidemic*, 11, “In multiple, fragmentary, and often contradictory ways, we struggle to achieve some sort of understanding of AIDS... we must explore the site where such determinations *really* occur and intervene at the point where meaning is created: in language.”; Latour, *Politics of Nature*, 81

emotional states of the protagonist, the tone is neutral, detailed, and empirical. There is very little metaphor, and where metaphor does appear, it is because pure description will not suffice, usually to bridge the gap between Oankali and human phenomenology. There is not a single elaborate or artful metaphor in all of *Xenogenesis*, and very little artful language. At Phoenix settlement, the village of resistor humans where Akin is sold and raised after his kidnapping, the inhabitants excavate old Earth cities in search of artifacts to trade. Akin, whose powerful Oankali sensory organs happen to be located mostly on his tongue, casually “tastes” one of the items, a memento of molded plastic, and is immediately ill from the toxins. Scenes like this both map the moral landscape of the novels and question the vaunted position of human artifice. And at the level of the prose, too, Butler’s novels reinforce this turn away from the works of Man.

Dawn and *Adulthood Rites* are the first and second novels in the trilogy. Lilith is the protagonist of *Dawn* and Akin, Lilith’s son and the first male construct, is the protagonist of *Adulthood Rites*. Both novels are narrated from a third-person perspective with limited omniscience, conveying the thoughts and experiences of Lilith or Akin and then dropping back to a more neutral but not omniscient perspective for description and dialogue. The third novel, *Imago*, is narrated by Jodahs, another of Lilith’s children and one of the first ooloi constructs. This novel employs first-person narration, though the tone is not much changed from the first two novels. The narration thus transitions, over the course of the trilogy, from human to nonhuman protagonists, beginning with objective narration originating outside of the human protagonist and concluding with objective narration originating within the nonhuman protagonist. The characterological implications of Oankali phenomenology—what it would mean, that is, to possess sense organs capable of perceiving at the microbiological level—simultaneously encourage this shift.

This submolecular sensory capacity to explore other organisms is greatest in ooloi, but it is something all Oankali possess. Ooloi can “taste” molecules in sufficient detail to survey the genes on a strand of DNA, and they “crave” this deep sampling of other lifeforms. Akin is kidnapped in part because he is so absorbed in “tasting” a caterpillar, to discern its characteristics and ecological niche, that he fails to detect an approaching band of violent humans. Kahguyah “examines” Lilith’s cancer “directly with all its senses” before inducing her body to reabsorb the tumor.⁹² At one point, Nikanj provides Lilith with an approximate perceptual analog of this Oankali sense. But it is Jodahs, when healing Jesusa’s gunshot wound, who best conveys an ooloi’s full capacity for perception and manipulation. Jodahs, Jesusa, and Thomás are rafting downriver, attempting to reach Jodahs’s family. Jodahs is curled on the raft, already hampered by metamorphosis, when a group of “resistor” humans fire on them from the bank, wounding Jesusa in the abdomen. Jodahs crawls to her and begins to heal her:

I had stopped the blood loss, stopped her bodily wastes from poisoning her. It seemed a very long time, though, before I was able to seal the hole in her colon and begin the complicated process of regenerating a new kidney. The wounded one was not salvageable. I used it to nourish her—which involved me breaking the kidney down to its useful components and feeding them to her intravenously. It was the most nutritious meal she had had in days.⁹³

This passage makes clear that Jodahs can perceive and alter the processes of Jesusa’s organs. It is aware of her traumatic injury, but also of more subtle elements like nutrient levels. It can trigger and direct not only cellular healing but apoptosis.

Once the novels are narrated by Lilith’s construct children, it is hard to distinguish Butler’s spare descriptive prose style from their highly empirical observations of the world

⁹² Butler, *Dawn*, Section I, Chapters 2 - 3

⁹³ Butler, *Imago*.

around them. Because this level of specificity, this profound and profoundly innate drive to know, is a core characteristic of the Oankali, it is hard to make clear, definitive divisions between characterization and narrative strategy. But the overall implication of the narrative shift from human to nonhuman, and from third to first person, is that Lilith's construct children—not their human parents and *also* not their Oankali forebears—are the ones best suited to this world and most capable of seeing it clearly.

The prospect of narration moved *into* the first person and at the same time so far *outside* of human (or anthropomorphized nonhuman) phenomenology is not, of course, unprecedented. But it does raise the fascinating question of how much nonhumanness a narrative for humans can entertain, and what particular purposes it serves. Akin and Jodahs know the “taste” of individual sequences of deoxyribonucleic acid. I use the word “taste” in quotes because, while this sense is in fact best accessed, by Akin at least, through his tongue, the experience is not in any sense what a human would recognize as tasting. Akin and Jodahs would say “deoxyribonucleic acid,” but that is a human translation of an experience which, for them, is more immediately sensory than symbolic. If they communicated the same experience through their sensory tentacles to another Oankali or construct, they would convey that “taste” directly using chemical neurological signals. Like the taste of chalk, or salt, the “taste” of DNA would, according to Charles Peirce's taxonomy of signs, be considered indexical: it signifies by a direct, material connection with its object. Communicating by sharing the sensory experience of DNA might be best described as passing not the object, but the indexical sign of the object, from one interpretant to another. Another example of this is the collection of genetic material Nikanj gifts to Jodahs before it departs to the mountain settlement with Thomás and Jesusa. An abbreviated

catalogue of genetic sequences from millions of organisms, the initial sensory experience of this gift leaves Jodahs with a feeling of intoxication.

Charles Peirce was an American chemist, mathematician, and surveyor, a consummate and pragmatic systematizer, whose unique system of semiotics differs from structuralist semiotics in crucial ways. Where structuralist models of communication articulated by Saussure and Levi-Strauss focus primarily on spoken language, Peirce's perspective originates in vision and diagrammatic thinking. His semiotics is couched in logic, phenomenology, and the normative sciences.⁹⁴ For Peirce, the mechanism of signification is not diadic but triadic: signs stand in relation to both their primary object of reference and an "interpretant" (the effect produced by the sign).⁹⁵ This pragmatic approach accounts for the phenomenological messiness of perception much more earnestly than a dualistic approach limited to sign and signifier. For Peirce, a sign is still a sign even if it is misinterpreted, indeed even if there never has been and never will be anyone to interpret it. It can be argued that Peirce's semiotics legitimizes signs in the absence of human interpretation and opens a space in the process of meaning production for nonhuman observers.

Peirce also distinguishes three stages of interpretation between sign and interpretant: immediate interpretant, dynamic interpretant, and final interpretant. The immediate interpretant is an immediate effect brought about upon perception of a sign. The dynamic interpretant is an impression formed in any intentional act of interpretation. And the final interpretant is universal interpretation at which each interpreter would arrive having considered the sign well and long enough, a kind of ideal interpretant. Every sign evokes all three stages, and their coexistence

⁹⁴ de Waal, *Peirce*, p. 75

⁹⁵ de Waal, *ibid*, p. 79-81; Peirce, *Collected Papers*, p. 228

suggests that in Peirce's semiotics it is far more difficult to designate any given interpretation as incorrect.⁹⁶ By separating the interpretation from the sign, and by allowing for different stages in a process of interpretation, Peirce nuances the links between signs and their intended meanings.

As I mentioned above, Peirce's trichotomy of signs explicitly provides for signs that, like a diagram of the Krebs Cycle, have an indexical—rather than symbolic—relationship to their objects. Peirce designates three kinds of signs: icons, which work by similarity or analogy; indices, which stand in real, material relation to their object; and symbols, which are connected to their object by interpretation only.⁹⁷ A photograph is both icon and index. A map is also icon and index. As is a weathervane. A map is an index because it must have scale, temporality, and specificity which bind it to a specific location, or else it is not a map. Sounds, clouds, and the limp resulting from a sprained ankle are all indices.⁹⁸ And these indices, along with the other types of signs, are all necessary to thought.

According to Peirce, icons and indices do not assert anything. Only symbols are indicative or declarative. However, we cannot think without all three kinds of signs: "In all reasoning, we have to use a mixture of *likenesses*, *indices*, and *symbols*. We cannot dispense with any of them."⁹⁹ If one agrees with Peirce, it becomes necessary to consider the possibility that Sassurean semiotics and the resulting structuralist conception of signification may elide a great deal of the signs with which we actually observe and think. Allowing for indices as signs, and assigning language-based signs to their own category in a diverse field of signs, automatically generates new space for alternative modes of communication by and with nonhumans.

⁹⁶ de Waal, *Peirce*, p. 83-4

⁹⁷ de Waal, *ibid*, p. 88-9; Peirce, *Essential Peirce*, 5-8

⁹⁸ Peirce, *Essential Peirce*, 14

⁹⁹ Peirce, *ibid*, 10

Pierce's concept of the indexical sign also has the added advantage of helping us to conceptualize biochemical processes—including the transcription of DNA—without recourse to analogy. Messenger RNA, which transports a reverse copy of a DNA sequence outside of the nucleus so that the sequence can be reproduced for use by the cell, is a molecular mirror image—a quite literal material index—of the DNA molecule. A DNA sequence for a trait is likewise, but in a more abstract sense, an index of that trait, in as much as it has a direct material relationship to the tissues which will ultimately express that trait. A molecular model of DNA, just like a diagram of the Krebs Cycle, is an indexical sign interpreted by living cells.

Peirce's semiotics thus allows—because the interpretant need not possess human language or culture—for nonhuman interpretants, making it just as useful for certain ecological applications as for science fiction. Cells with chemical receptors for hormones are interpretants. Trees that send chemical signals to one another through mycorrhizal networks are interpretants. Insects attracted to or repelled by molecules emitted by plants—and plants warned by other plants about infestations—are interpretants. In Peirce's vocabulary, these organisms all interpret biological structures as icons and indexes. The result is a degree of observational and communicational agency located in cells, tissues, and organs of organisms of varying complexity, and a critique of the human which opens *out* onto new possibilities for both communication and being. Peirce's semiotics suggests possibilities for human/nonhuman engagement even more radical, perhaps, than those laid out in Bruno Latour's political ecology. Where Latour's experts merely translate or transcribe nonhuman communication through scientific study, according to Pierce's model the nonhumans communicating biochemically with and *within* humans, sometimes directly to human brains via neurotransmitters, can be understood as agents communicating through indexical signs.

In the introduction, I explained that many end of the world dystopias feature a phenomenological disorientation or dehumanization which I call enstrangement. This repeat narrative prioritization of indexical signification in nonhuman sensory experience is one of the ways in which the novels gesture beyond enstrangement, pushing the reader to imagine the “taste” of DNA for herself, marking the gaps between the perception and cognition of humans and that of other kinds of organisms. Peirce’s semiotics can be helpful when parsing the unusual valences at which—because of the nonhuman physiologies involved—signs function within *Xenogenesis*. Akin’s experience at the Phoenix dig site is an excellent example. The artifact Akin tastes has been set aside by the resistor humans because it is a Christian relic, a religious artifact from before the nuclear holocaust that destroyed most human life and culture, leaving Earth uniquely vulnerable to colonization by the Oankali. To Akin’s human captors, the relic already signifies at multiple levels, evoking Christ and, for some, childhood memories of religious rituals, as well as sentimental attachments to the lost material culture of global capital. Because it evokes that material culture, the artifact is also now an emblem of resistance against Oankali occupation and coercive practices.

Most of these layers of meaning are lost on Akin. In an earlier scene, while still an infant in human terms, he tastes a caterpillar and finds that it carries toxins. His body is able to perceive and eliminate these toxins, consciously separating them from the other substances he takes in. But when he tastes the plastic artifact, using his tongue to explore its chemical composition, his body is entirely unprepared for what it finds. He is not able to protect himself from the toxins and is ill for several days. Akin’s Oankali modes of perception cause the artifact to signify along additional valences, including its unique and non-biodegradable molecular structure, which

sickens Akin and causes him to ask his caretakers why the dead culture they so revere had filled its dwellings with poison.

Akin's unique observational abilities, the result of his Oankali ancestry, both evoke the observational difficulties articulated by Niels Bohr and clarify how these observational difficulties are physiologically bound to the apparatus of observation, and thus vary from species to species and individual to individual. In his work on the problem of observation and the 2-slit device, Bohr explained that, despite the fact that electrons can be observed to have both particle-like and wave-like properties, it is impossible to observe both the wave and particle nature of electrons at the same time. Karen Barad understands this contradiction as being the result of the tight linkages between the observer, the observed, and the apparatus of observation. When the apparatus is calibrated to detect electrons as particles, it will not detect electrons as waves, and vice versa.¹⁰⁰ The same is true of the human organs that provide our senses of sight, touch, hearing, and smell. These organs act as apparatus of observation, and in doing so determine what and to what extent we perceive in definitive, reality-shaping ways. Akin possesses different apparatus of observation. Not only his sense of his world, but what he senses, and how he *makes sense* of what he senses, how he makes his perceived world into meaning, are determined by his organs of perception. In the context of *Xenogenesis*, Akin is the second step in the process of humans becoming nonhumans—his generation will change his culture and its meanings because their apparatus of observation are entirely new.

This is as true for the Oankali as it is for their human captives. Akin, sympathetic to humans' need for autonomy because of his own human parentage and his long captivity at the Phoenix resistor settlement, convinces the Oankali to start a Mars colony for humans. Lilith's

¹⁰⁰ Barad, *Meeting the Universe Halfway*, 106, 114, 124, 128

subsequent ooloi children, Jodahs and Aaor, are highly dependent upon humans to maintain their own bodily integrity and their ability to manipulate lifeforms. But they are also far more talented than prior Oankali generations at seducing humans and meeting their emotional needs. Because of this new generation of ooloi, Oankali biology and culture will be forever changed. None of this—the Mars colony, the new mountain settlements begun by Jodahs and Aaor—would have come to be if Lilith had not consented, as a means of survival, to having her body altered, impregnated, colonized.

What these children of Lilith's—these children who create new worlds for human and Oankali habitation—show is that it is not merely humans who are limited by their apparatus of observation but *all organisms*. Akin, Jodahs, and Aaor have an understanding of humans that prior generations of Oankali could never have possessed. Nikanj says to Lilith repeatedly “your children will know us, but you never will.” And Nikanj's human/Oankali offspring will also comprehend *humans* in a way Nikanj never could. The point is not that one or another way of perceiving is better or worse, but that any intelligence is phenomenologically bound to its apparatus of observation. New worlds, new ways of living and being—new ways of surviving—are born out of these new ways of observing and interpreting. The novels move away from the human and toward the nonhuman not as a binary shift from bad to good, unclean to righteous, but as a painful, complicated fusion of human and nonhuman that, over time, gives rise to more durable and more ethical ways of life.

In two separate interviews, Octavia Butler recounts her motivation for writing *Kindred* as having stemmed from conversations with a Black nationalist classmate at Pasadena City College:

He said, “I’d like to kill all these old people who have been holding us back for so long. But I can’t because I’d have to start with my own parents.” [...] He felt so strongly

ashamed of what the older generation had to do, without really putting it into the context of being necessary for not only their lives but his as well.¹⁰¹

Butler felt that her classmate knew far more about Black history than she did, but that his understanding was “all cerebral.” She contrasted his statement with her experiences of her mother having to enter the back door to her workplace, of “people saying things to her that she didn’t like but couldn’t respond to [...] And she kept working, and she put me through school, she bought her house [...] I realized that he didn’t understand what heroism was.” Butler felt that her classmate, “was the kind that would have killed and died, as opposed to surviving and hanging on and hoping and working for change.” She understood *Kindred* as being about “when you are aware of [...] what choices you have to make, the fact that maybe you’re afraid, but you still have to act.”¹⁰² Lilith’s actions aboard *Chkahichdahk* are a very clear example of choosing to survive, hang on, and work for change. Lilith is awakened, apprised of her situation, and offered a choice: she can learn the Oankali spoken language, learn how to live without advanced technologies on equatorial Earth, then and awaken and instruct a band of humans in how to survive there. Or, her captor offers, she can suicide by touching one of his tentacles. Lilith chooses to live. She decides, inwardly, to instruct the humans so that they will be returned to Earth and can “run like hell at the first opportunity.”¹⁰³ She is bred with Nikanj, who modifies her brain so that she can quickly learn Oankali, along with her body. Her plans for her humans are foiled by the fact that ooloi render them infertile before releasing them. And for the rest of her life Lilith struggles with the complicity of bringing human males into her mating bond with Nikanj.

¹⁰¹ Rowell and Butler, “An Interview with Octavia E. Butler”, 51

¹⁰² Butler, “Octavia Butler.”

¹⁰³ Butler, *Dawn*, Section III, Chapter 1

Decades later, Jodahs overhears Lilith explaining what she did on *Chkahichdahk* to its new mate Jesusa. Jesusa replies that Lilith didn't have a choice. "I did, oh, yes," says Lilith. "I chose to live."¹⁰⁴ Like Dana in *Kindred* and, in some ways, like Butler's own mother, Lilith chose to "hang on and hope and work for change." Is Butler's depiction of Lilith's quite literally dehumanizing experiences actually a reinvestment in the human? Certainly not. Is it a "fight for change" in the secular humanist context of civil rights activism? No. *Xenogenesis* is ultimately a vilification of both humans and Oankali. And in more senses than one there is no going back: the Oankali will eventually depart on a ship composed of the planet's remaining organic matter, leaving behind a lifeless rock. Rather, *Xenogenesis Trilogy* disinvests from both the world of Man and the prior worlds of the Oankali, offering its own new futurities while never obscuring the injustices and loss that naturally result from such encounters. The persistent theme is the repeated enstrangement of human captors, the alteration of human physiology, and all the uncomfortable states of mind that accompany that alteration. Those individuals, the ones who suffer enstrangement, they are the ones who take part in and give rise to new worlds.

Lilith and the other surviving humans of Oankali-occupied Earth experience repeated instances of enstrangement, beginning in *Dawn* with Jdhaya's demand that Lilith look at him and sleep next to him in the room where she has been confined. Lilith struggles with her initial response to Jdaya's tentacles:

She frowned, strained to see, to understand. Then, abruptly, she did understand. She backed away, scrambled around the bed and to the far wall. When she could go no farther, she stood against the wall, staring at him. [...] Some of the "hair: writhed independently, a nest of snakes startled, driven in all directions. Revolted, she turned her face to the wall.

¹⁰⁴ Butler, *Imago*, Section III, Chapter 1

”They’re not separate animals,” he said. “They’re sensory organs.”¹⁰⁵

Lilith knows that if she cannot get used to Jdhaya she will not be kept alive. She causes herself pain to get past the revulsion: “She made a fist of one hand and deliberately dug her nails into her palm until they all but broke the skin. With the pain of that to distract her, she faced him.”¹⁰⁶

I’ve defined enstrangement as the horror, disgust, and dysmorphia characters experience when brought face to face with the profoundly nonhuman, strongest when undergoing changes to one’s own body. The reaction is not confined to post-apocalyptic fiction, and is strongest where the nonhumans in question are most resistant to anthropomorphism. Elsewhere I have described organisms which evoke this resistance as having “resistant reproductivity,” since such nonhumans usually exhibit reproductive attributes—whether a budding amoeba, a juvenile sea otter raping a baby seal, or an ooloi offering up the cold flesh of its elephantine sensory arm—that “resist” the human tendency to anthropomorphize.¹⁰⁷ Earlier in this chapter I reviewed Edelman’s figure of the *sinthomosexual*, the homosexual onto which the social order projects the *sinthome* in order to maintain its collective telos. Inherently othered and diametrically opposed to reproductive futurism, the *sinthomosexual* has some similarities to the characters who, in end of the world dystopia, undergo enstrangement and survive. Like the *sinthomosexual*, these figures stand in opposition to reproductive futurism—but for markedly different reasons. These characters who survive enstrangement, figures I call “the estranged,” challenge reproductive futurism not with nihilism but with survival outside the bounds of the social order and its telos. Changed and changeable, their bodies are the starting point for new worlds and ways of being

¹⁰⁵ Butler, *Dawn*, Section I, Chapter 2

¹⁰⁶ Butler, *ibid*, Section I, Chapter 3

¹⁰⁷ Groshek, “Inverted Flowers, Cuckolding Corn, and Interspecies Rape.”

beyond the world of man. They survive the horror of that ending, often manifested as literal alterations to their physiology, entering the vortex of the death drive and exiting out the other side—no longer fully human and indelibly marked by the endings they endure.

The enstranged are the unwilling power bottoms of the end of Man, fecund by penetration or colonization of the nonhuman. Mere vessels, often nearly or entirely psychologically undone by their experiences, they appear in every end of the world dystopia, and bridge the narrative's passage from the end of Man to what comes after. The states the *sinthomosexual* undergoes, despite their implicit link to the death drive, are often interpreted—especially within queer theory—as liberatory. Even Edelman associates the *sinthomosexual* with *jouissance* and argues for *jouissance* as a kind of liberatory affective state. But the narratives in my archive suggest that the unmediated experiences of the nonhuman endured by the enstranged *cannot* be liberatory precisely because they are phenomenologically alienating to the point of shattering the self. As a general rule, enstrangement is horrifying and sometimes fatal. And where it cannot be survived, the narrative can produce no new futures.

In this section, I have explored the ways in which *Xenogenesis Trilogy* uses literary devices, characterization, and plot to disinvest from the humanist project. I have pointed out the unique ways in which nonhuman physiologies in these narratives challenge conventional semiotic models, demonstrating the link between meaning and materiality and the ways in which their union has a generative function with regard to posthuman futurity. I have also summarized various lines of argument within queer negativity, and explored the relationship between queer negativity, the progressive telos of the social order, and the nonhuman posthuman. End of the world dystopia inhabits a slightly different space, in relation to the world of Man, than does queer negativity in that it exceeds, through non-liberatory affective states of enstrangement, both

the world of man and its nihilistic counterpoint in queer negativity. As I will explore in the subsequent section, enstrangement is the clearest point of contrast between *Xenogenesis Trilogy* and *Alien Resurrection*. Where the protagonists of *Xenogenesis* undergo various and repeat instances of enstrangement, giving rise to myriad future worlds, the protagonists of *Alien Resurrection* ultimately reject the nonhuman. The result is a nostalgic, *sinthomosexual* state of queer negativity: lesbian protagonists on a polluted, abandoned Earth, overlooking a landscape which harks sentimentally back to a lost world of Man.

“I’m a stranger here myself”: *Alien Resurrection*’s Return to the Human

The *Alien* franchise tells the story of humans’ encounters with a species named Xenomorph XX12, colloquially referred to simply as xenomorphs. The species has a social mating structure similar to insects like ants, wasps, and bees, with a mating queen that breeds a colony of subordinate castes. Xenomorphs have a parasitic life cycle involving several multicellular stages, one of which implants in and subsequently bursts from the body of motile, multicellular hosts (eg. humans, dogs). *Alien* installments 1-3 follow Lieutenant Ellen Ripley’s battles with the xenomorphs. At the end of *Alien 3*, she leaps to her death in order to kill a larval xenomorph queen bursting from her chest.

Alien Resurrection begins in space, on the research vessel *USM Auriga*. The United Systems Military has cloned Lieutenant Ellen Ripley in order to obtain a xenomorph queen.¹⁰⁸ Using this queen to breed more xenomorphs, researchers pursue lucrative military and commercial applications for xenomorph traits. Meanwhile, the mercenary ship *Betty* arrives with a cargo of humans in cryosleep, to be used for experimentation. When xenomorphs break free of

¹⁰⁸ I won’t spend undue space here on the absolute implausibility of this central aspect of the plot, but I do feel it’s important to acknowledge that cloning the cells of an individual infected with a parasite would *never* result in simultaneously cloning that parasite unless the infection was intracellular—which, in this case, it is not.

their enclosures and begin attacking the humans aboard, the crew of the *Betty*, along with cloned Ripley 8 and researcher Dr. Wren, flee through the *Auriga* in attempt to reach the *Betty*.

In this section, I explore *Alien Resurrection* both as an installment of the *Alien* franchise of horror films and as an end of the world dystopia, comparing it to Butler's *Xenogenesis Trilogy*. I use Robin Wood's work on the American horror film and the original *Alien* to show how *Alien Resurrection* departs from the franchise in its depiction of nonhumans and the potential for nonhuman futurity. I explore the distinction, articulated by Wood, between reactionary and apocalyptic horror, placing these terms in the context of the genres of apocalyptic narrative, post-apocalyptic narrative, and end of the world dystopia relevant to my project. I argue that while *Xenogenesis* embraces the nonhuman, giving rise to several nonhuman futures, *Alien Resurrection* ultimately retreats to the reactionary position of the franchise, foreclosing on future worlds and concluding with its protagonists in a position of queer negativity.

There is, according to Robin Wood, a "simple and obvious formula for the horror film: normality is threatened by the monster." Monsters may be "protean," changing from generation to generation with social and technological pressures. But it remains true over time that horror gives voice to society's "collective nightmares," portraying whatever must be suppressed in order to sustain "normality."¹⁰⁹ Building on psychoanalytic ideas of sexual repression, Wood believes that threats to social systems are usually repressed, rather than outwardly oppressed. His examples include: humans' universal bisexuality; sexual energy in general, as expressed as both sexuality and creativity; female sexuality and creativity in particular; and, the sexuality of children.¹¹⁰ Repressed parts of our culture are, according to Wood, projected onto various entities

¹⁰⁹ Wood, Grant, and Lippe, *Robin Wood on the Horror Film*, 83-4

¹¹⁰ Wood, Grant, and Lippe, *ibid*, 75

or demographics within or outside of the culture, and horror's monsters embody these repressed parts of ourselves which, because repressed, "strive to return."¹¹¹ Horror can, however, express one of two relationships to what is repressed, to the battle between "normality and the monster." "Reactionary" films ultimately reaffirm traditional values, protecting and restoring nuclear families and reinforcing traditional gender roles. "Apocalyptic" films, on the other hand, present the nuclear family or traditional gender roles as the *source* of horror, and often threaten and destroy figures of family or traditional gender roles without recompense. Apocalyptic horror films, according to Wood, give "the sense of civilization condemning itself, through its popular culture, to ultimate disintegration, and ambivalently [...] celebrating that fact."¹¹² Apocalyptic films, in the context of queer negativity, might be described as those in which nihilism or negativity is not recuperable into the dominant ideology and telos and constitutes, on the contrary, the recognition of that ideology's disintegration.

Unfortunately, Wood's sense of reactionary horror matches best with what I have, elsewhere, called apocalyptic narrative, in the sense that most apocalyptic narratives ultimately restore the social order—including traditional family and gender roles—after a moral reset. Wood identifies in *Texas Chainsaw Massacre* an example of the nihilistic "apocalyptic" strain in horror film which questions the rightness and validity of the social order. These narrative conventions are common to what I have elsewhere called post-apocalyptic narrative and end of the world dystopia. For example, Wood argues that the original *Alien*, while on the surface representing itself as "progressive," is in fact a clear example of a reactionary horror film. Lieutenant Ripley is, undoubtedly, a strong female character: masculine, commanding, and able

¹¹¹ Wood, Grant, and Lippe, *ibid*, 86

¹¹² Wood, Grant, and Lippe, *ibid*, 101

to captain a ship and operate all manner of improvised and standard issue weapons. But despite these symbolic gestures towards Ripley as an emancipated woman, Wood finds that “what [*Alien*] offers on this level amounts to no more than pop feminism that reduces the whole involved question of sexual difference and [...] patriarchal oppression to the bright suggestion that a woman can do (almost) anything.”¹¹³

One of the ways in which Ripley’s emancipated status is achieved is the wholesale repression of sexuality in its human characters. Encapsulated from the cold (Real?) vacuum of space in a ship called “Mother” and attended by the paternal android Ash, the crew’s return voyage reads as infantile and neuter to the point of utopianism. But what is repressed, according to Wood, will return, and this repressed sexuality returns “grotesquely and terrifyingly” in the xenomorph, a “complex image of archetypal sexual dreads [...] the monstrous phallus [of the xenomorph’s reptilian neck combined with vagina dentata [of the xenomorph’s extensible, snapping, secondary jaw].”¹¹⁴ In my opinion Wood misses several profoundly phallic aspects of the xenomorph, including its smooth, slightly curving skull and the fact that this head constantly drips viscous fluid—which burns through the glass and metal of human ships, dropping through deck after deck, threatening by its very presence the breaching of hulls and the exposure of fragile human bodies to vacuum. Vacuum in which, it turns out, xenomorphs survive just fine. Consequently, the space ships of the *Alien* franchise make a rather adept figure for Lacanian social order.

Despite her purportedly emancipated status, Ripley is *always* the most reactionary voice in the film where the xenomorphs are concerned. According to Wood, *Alien* most closely

¹¹³ Wood, Grant, and Lippe, *ibid*, 108

¹¹⁴ Wood, Grant, and Lippe, *ibid*, 109

parallels *The Thing* in its depiction of the monster as both non- and superhuman, and in the fact that in both films “science regards the alien as a superior form.”¹¹⁵ Other characters may be overtaken by scientific curiosity or capitalist greed. The characters who seek to capitalize on the xenomorphs’ traits are almost always killed by them. But Ripley’s instinct to destroy the aliens, to keep them *outside* the fragile familial bubble of human infrastructure and bodies, remains savagely clear. *Alien*, in Wood’s words, “creates its image of the emancipated woman only to subject her to massive terrorization [...] and enlist her in the battle for patriarchal repression.” Wood remarks, referring to the escaped Ripley’s airbrushed, drifting sleep in the shuttle’s cryosleep chamber (a capsule within a capsule, doubly sealed against the vacuum of the Real) with her pet cat, Jones, at the end of the original film that, “Having destroyed the alien, Ripley can become completely ‘feminine’—soft and passive, her domesticated *pussy* [emphasis mine] safely asleep.”¹¹⁶

Wood concludes his essay on the American horror film with the summation that while, in the late 1970s, the reactionary horror films like the original *Alien* dominated the genre, apocalyptic films like *Night of the Living Dead* (1968) and *Texas Chainsaw Massacre* (1974) “reflect ideological disintegration and lay bare the possibility of social revolution.”¹¹⁷ Since the late 1970s, these themes have become even more prevalent in horror and non-horror subgenres including zombie apocalypse, slasher films, climate apocalypse, post-apocalyptic narrative and, of course, end of the world dystopia. Even the subsequent installations of the *Alien* franchise, the first of which Woods finds to be such a clear example of the reactionary, ultimately take on

¹¹⁵ Wood, Grant, and Lippe, *ibid*, 109

¹¹⁶ Wood, Grant, and Lippe, *ibid*, 110

¹¹⁷ Wood, Grant, and Lippe, *ibid*, 110

many aspects of post-apocalyptic narrative. *Alien Resurrection*, despite its ultimately reactionary ending, contains many elements of end of the world dystopia, elements which bring it much closer to what Wood would have designated as an apocalyptic horror film. Part of the reason for its mixed critical reception, in my opinion, is the film's attempt to straddle this divide by embracing aspects of the nonhuman while, ultimately, concluding with an outright rejection of the nonhuman and nonhuman hybridity by main characters so absolutely crip and queer that they cannot offer a reactionary restoration of family or sexual normality.

This reactionary ending, for the same reasons, makes *Alien Resurrection* an imperfect example of end of the world dystopia. *Alien Resurrection*, like *Xenogenesis*, challenges the boundaries of the human, but does so by imbuing nonhuman characters with humanity rather than imbuing human characters with nonhuman characteristics. The film does conclude, unlike other *Alien* films, on an uninhabitable Earth—a planet Johnner refers to as “a shithole.” Its surviving protagonists are all in some manner crip or queered, but its reactionary relation to the nonhuman means that it cannot produce new nonhuman futures.

Alien Resurrection's critique of Man is carried out through a series of cutting and often parodic cultural tropes—of masculinity, militarization, medicalization, and surveillance. From the establishing shot aboard the *Auriga*, the film revels in over-the-top renderings of these tropes: two uniformed soldiers stand on either side of an airlock, their squarely masculine jaws chewing gum in perfect synchrony, their rifles angled across their chests so that each weapon points—ridiculously—at the other's head. Text in an all-caps font reminiscent of a DOS interface, reinforcing the techno- and info-philic nature of the ship's military and scientific missions, informs the viewer of the ship's name, purpose, and complement: “42 ENLISTED, 7 SCIENCE OFFICERS.” Then the camera zooms past two science officers in white, knee-length tunics

resembling monastic robes, to a circular tank which contains the developing clone of Ripley 8. “My mommy always said there were no monsters, no real ones,” says Ripley’s voiceover. “But there are.” Scientists gather around the tank and one can be heard uttering, in reverent tones, “She’s perfect.” This opening scene portends the plot: monstrous human institutions, a reified, masculinist militarism and a near-religious scientific positivism reduced quite literally to ash by the narrative’s non- and not-quite-humans.

In the subsequent scene, the science team surgically extracts a larval xenomorph queen from Ripley 8’s chest. When the xenomorph larva first emerges, both Dr. Wren and Dr. Geidman utter soft exclamations suggestive of religious or sexual ecstasy. The film clearly continues the theme, identified by Wood in the original *Alien*, of humans erroneously or hubristically attempting to harness the traits of the superhuman or “highly evolved” nonhuman. These attachments mark them, from this moment forward, as deserving of the especially gruesome deaths reserved only for villains. The larva is successfully extracted. Then Dr. Geidman turns to Dr. Wren to ask, of Ripley 8, “What about her, can we keep her alive,” and the extent of the institution’s collective fascination with the queen becomes clear: the cloned human, what General Perez later describes as a “meat by-product” has been a mere vessel for the main object of research.

General Perez, too, is both visually and figurally marked as a parodic depiction of militarized masculinity from his first crosseyed appearance, as he reviews one of Ripley 8’s clinical sessions with Wren and Geidman. Perez fumes at the prospect of keeping Ripley 8 alive, certain that the inherited memories of Lieutenant Ellen Ripley will drive Ripley 8 to destroy the xenomorphs and bring the project to a catastrophic end. He storms from the room and down a hallway, with Wren and Geidman following close behind, but is caught short at another entrance

when the breath-operated security system rejects his sample. “Please try again,” the AI flatly but firmly requests. Wren and Geidman share an embarrassed glance at this moment of voyeuristic and mildly homoerotic emasculation, as Perez opens his mouth wider and exhales again on the sensor.

The parody originates from the contrast between Perez’s uniform and military affect, the rigidity of his posture and sentiments, and his mildly crossed eyes. The fact that the ship’s security systems constantly stymie his movements further undercuts his authority. The setting has also shifted, from the insular, womb-like nuclear family crew of the *Nostramo*, with its AI named “Mother,” to a sprawling, rigidly hierarchical space station with an AI named “Father.” The nuclear family threatened and subsequently restored in the original *Alien* has been exchanged here for a parodically patriarchal social order. The two transparently feminine characters are, in fact, the android Call, passing as human in order to put an end to the scientific research on the *Auriga*, and the xenomorph queen herself, referred to over and over as simply “the Queen.” The viewer is offered, on the whole, a far less sympathetic vision of the human project: a controlling, patriarchal ship staffed by a collection of puffed-up soldiers and scientists who breed, confine, experiment on—and in Geidman’s case, fetishize—the alien mother.

Lieutenant Ripley’s place in the narrative is also significantly complicated by Ripley 8’s status as a clone, which has left her with xenomorph characteristics including superhuman strength, acidic blood, “genetic memory,” and a coldness Dr. Wren labels “emotional autism.”¹¹⁸ These characteristics are disclosed to General Perez in recordings of icy lab technicians

¹¹⁸ Just like the prospect cloning the xenomorph queen from the blood of an infected Ripley, the idea that the Ripley clone would then have taken on xenomorph traits is an unexplained and erroneous extrapolation on the phenomenon of infection with a multicellular parasitic organism. Nevertheless, the xenomorph characteristic of inherited, intergenerational memories transmitted through genetic material is a novel—though anachronistic—link to what we now call epigenetic change. This idea of the nonhuman other outside of Man as carrying and transmitting knowledge in extralinguistic ways, and the sense of humans’ epigenetic phenomena as an access point or route of passage beyond the boundaries of the human is a theme that recurs in end of the world dystopia.

examining Ripley 8 and administering vocabulary tests. Later Ripley is shown having been returned to her panopticon-like cell, the transparent ceiling occasionally shadowed by a guard who paces back and forth above. The xenomorphs are contained in another circular, panopticon-like structure, with Dr. Geidman and his associates studying the xenomorphs from a central viewing room around which the compartments of xenomorphs mechanically rotate. The *Auriga* is a dense crystallization of medical research facility and prison, constantly surveilling both laborers and subjects of study. Dr. Wren, when discussing the applications of their research with Ripley 8 in the cafeteria, makes clear the rehabilitative intent of the carceral floorplan when he discloses, almost as an afterthought, that he believes the xenomorphs can be trained. Ripley 8, speaking from her “genetic memory” of life as Lieutenant Ripley, replies that the xenomorphs cannot be trained. “Why not?” he asks, taking a noodle from her plate. “We’re training you.” The pale, wiggling noodle undercuts both his masculinity and the authority of his claims. In the end, of course, Ripley 8 is correct. “It’s a queen,” she tells Geidman, “She’ll breed. You’ll die.” And not one of these parodical characters who so neatly conforms to the *Auriga*’s patriarchal protocols will reach Earth’s surface.

The crip and queer status of *Alien Resurrection*’s survivors also distinguish the film from the original *Alien* and problematize its ending. The complexity of paraplegic Vriess’s character, including both his ferocity and ingenuity when fighting the xenomorphs and his ultimate survival, all position the film as an early critique of ableism. In the cockpit, as Vriess pilots the ship through the clouds, Johner gives a shout of joy and kisses Vriess on the lips—lending new significance to their first scene, in which Johner drops his knife from a catwalk so that it penetrates Vriess’s insensible leg. Nonwhite characters Christie and Distephano have,

admittedly, been killed during their flight through the *Auriga*, but not one character makes it to Earth's surface without having been literally or figuratively crippled or queered.

The comic presentation of General Perez's strabismus would seem to undercut Vriess's crip representation. One alternative is that Perez's eyes, which of course turn inward as though to focus on something very near his nose, are a marker not of an inability to see but of an unwillingness to lift one's gaze, to look ahead, to see the future—perhaps linked to the concept of gestural whiteness in the face of the end of Man which I explore in Chapter 3. Perez does, after all, anticipate that Ripley 8's inherited memories will drive her to destroy the xenomorphs. What he ignores, to the very end, is the far greater and far more obvious risk of the xenomorphs themselves. Perez and Wren die in a similar fashion: Perez in military salute as his head is punctured from behind by a xenomorph's fistlike inner mouth; Wren trepanned in a similar fashion by a larval xenomorph bursting from the raging Leland's chest. If it were possible to read this fourth installment in the franchise independent of the others, that particular manner of death by xenomorph would seem to be reserved for those who, with respect to the obvious danger of the creatures bred by their operation, appear to have "a hole in the head."

As the *Betty* descends into Earth's atmosphere, Ripley 8 and Call cling to cargo netting in the loading bay, the clone's arms wrapped intimately around the android. Over the course of the film, Ripley 8 undertakes a crude, butchy flirtation with Call. In one scene she rips out and hands over to Call the viscous and vaguely dildo-like inner jaw of a freshly-killed xenomorph. In another, she "fingers" Call's abdominal gunshot wound, which weeps a whitish liquid. Both Ripley 8 and the android have conflicted relationships to their own hybridity, and both protagonists are allowed very little real choice when it comes to survival. In an early scene, Call offers to kill Ripley 8: "What makes you think," the clone responds with a note of sexual charge,

“I’d let you do that?” Later, in a vulnerable moment of self-loathing, Call asks Ripley 8, “How do you go on living?” Ripley 8’s response, “Not much choice,” is almost verbatim what Lilith says when explaining her life to Jesusa.¹¹⁹ Ripley 8 somewhat imprecisely identifies herself to Leland as “the monster’s mother.” Lilith is quite literally the mother of several nonhumans.

The real difference between *Alien Resurrection* and *Xenogenesis*, the reason an installment of *Alien* cannot offer the kinds of nonhuman futures to which the trilogy gives rise, is in the very different enstrangements resulting from Oankali and xenomorph parasitism. Both narratives feature nonhumans that are, albeit in very different manners, human parasites. The Oankali utilize human bodies and genetics to reproduce. Xenomorphs use the human body for food and to incubate their offspring. In a general sense, ecologically speaking, a parasite that routinely and quickly kills its host is inefficient, because it misses out on the chance for greater dispersal throughout the host population. And in turn, generally speaking, humans tend to be more permissive with and less horrified by more efficient parasites. The common cold, to use viruses as an example, has had a very long time to acquire a genetic makeup which allows it to prolong morbidity and optimize dispersal. In turn, it is treated with much less alarm than SARS, MERS, and Covid-19. From this perspective, and in contradiction to all the masculinist dialogue in the franchise and fandom about how “highly evolved” Xenomorph XX121 is, the Oankali are much more effective (thus more highly evolved) parasites. The enstrangement wrought by xenomorphs is consistently fatal. The resulting and obvious goal, in most *Alien* films, is the preservation of human life. The instances of enstrangement common to the franchise—in particular the human host’s ghastly contortions as a larval xenomorph, what fandom colloquially calls a “chestburster,” rips open his or her chest—all reinforce the divisions between human and

¹¹⁹ Jeunet, “Alien Resurrection”, 1:20

nonhuman. Whatever challenge to the world of Man the xenomorph might present is prohibitively barred by its abject savagery. Ripley 8's disdain for Man is clear as she explains to the panicking miner Leland what has been done to him: "There's a monster in your chest. These guys hijacked your ship, and they sold your cryotube to this... *human*. And he put an alien inside of you. It's a really nasty one. And in a few hours, it's gonna' burst its way through your ribcage, and you're gonna die. Any questions?" "Human" operates in this sequence both as a designation and a slur, pointedly contesting Wren's humaneness. Rather than a single xenomorph threat to puerile family normalcy, *Alien Resurrection* presents competing threats in the xenomorphs and the patriarchal world of Man.

There are rare examples of enstrangement from *Alien Resurrection* that appear temporarily survivable. Dr. Geidman, cocooned in the queen's nest, can still speak and turn his head, though his presence does beg the question of why he has been cocooned and for whom he might, ultimately, serve as food. And of course hosts like Leland, who carry a growing chest-burster, can think, walk, speak and, in Leland's case, kill. Ripley 8 is perhaps permanently enstranged as a result of her xenomorph traits, but they result from scientific experimentation, not the actions of a xenomorph. And Ripley 8's response to the lab containing the deformed, bedridden Ripley 7 and the preservation tanks containing failed clones 1-6 is ambiguous with regard to these experimental nonhumans. Ripley 7 does, admittedly, beg Ripley 8 to kill her. But Ripley 8 does so in a rather inhumane way, with a flamethrower. She then fires on the preservation tanks, which (improbably) explode, and leaves the bodies of her "sisters" spilled on the floor. It is as if Ripley 8's actions serve not only to assert her humanity and emotionally distance her from the medicalization and surveillance which took place on the *Auriga* but also to remove any extant evidence of her inhuman origins. As much as Ripley 8 problematizes the

“pussy”-preserving reactionary nature of Lieutenant Ripley’s trajectory, she is also the ultimate xenomorph-killing machine. Over and over, her least human attributes (her strength, acidic blood, and psychic connection to the xenomorphs) are used to end nonhuman lives.

This includes the translucent-skinned half-human the xenomorph queen births with what the cocooned Dr. Geidman labels her “human reproductive system.” After birth, having imprinted on Ripley 8, the hybrid bites off Geidman’s head and kills its own mother. The reactionary nature of the franchise dictates that this offspring—such a fascinating development, so physiologically human—must at the same time be uncomplicatedly un-infant-like and unable to bond. The xenomorph mother has destroyed the patriarchal order of the *Auriga* but remains unable to supplant it. Thus the film fails to restore Wood’s normative family not once, but twice.

When the human/xenomorph hybrid sneaks onto the *Betty*, killing Distephano and digitally penetrating Call’s gunshot wound (a violent mirroring of Ripley 8’s intimate ministrations to the same injury), Ripley 8 kills the hybrid by flinging her own acidic blood onto a window in the loading bay. The “monster’s mother,” having used her own xenomorph traits against her half-human “grandchild,” watches as its fleshy, exoskeletonless, anthropomorphic body is sucked, screeching, through a tiny aperture into space. The closest Ripley 8 can come to human is this butchy, monstrous, infanticidal lesbian who ends her own family line in order to save her android lover—cementing both her homosexual orientation and non-reproductive status in the process. Moments after the hybrid is sucked into space, the *Betty* crests Earth’s stratosphere. “We did it,” Ripley 8 says, flatly. “We saved the earth.” “What happens now?” Call asks, in phrasing that provides perhaps another link to cyclical, queer temporality (not, for example, “What happens next?”). “I don’t know,” says Ripley 8. “I’m a stranger here myself.”

In the final minutes of the special edition of the film, Call and Ripley 8 are shown having disembarked from the *Betty* at a location that overlooks the ruins of Paris. With a toppled Eiffel Tower in the near distance, they discuss where to hide from the United Systems Military. This is certainly an uninhabitable Earth: the air is thick and reddish, and no movement can be seen in the ruined metropolis. But unlike *Xenogenesis*, these queer lovers produce no new futures. Instead, the two inhuman protagonists make plans to hide themselves from the human world. Othered survivors, “strangers” certainly, but these are not the estranged, and the narrative has consequently failed to produce nonhuman futures. What Ripley 8, Call, and Vries—the collective moral compass of the film—instead figure is the the oppositional but nostalgic, non-reproductive relationship to reproductive futurity of the *sintomosexual*. This is queer negativity at the end of the world: too alienated from Man to contribute to its continuance, but too invested in Man to look elsewhere.

Conclusion

At the end of *Imago*, Jodahs plants a seed which will grow into a new trade town, similar to Lo, the village where it was born:

“I chose a spot near the river. There I prepared the seed to go into the ground. I gave it a thick, nutritious coating, then brought it out of my body through my right sensory hand. I planted it deep in the rich soil of the riverbank. Seconds after I had expelled it, I felt it begin the tiny positioning movements of independent life.”¹²⁰

Jesusa and an elder from her town have helped Jodahs to select the spot. The elder has decided, with many others, to stay on Earth with the construct ooloi rather than joining the colony on Mars. Jesusa urgently awaits Oankali mates, excited to have children. The seed town will be the starting place of a new, fully consensual trade, and will eventually become a ship to carry its

¹²⁰ Butler, *Imago*, Section III, Chapter 16

inhabitants into space. The seed emerges from Jodahs's sensory hand not because it can, but because it must: it is by foregrounding nonhuman agents and disinvesting from the world of Man that this end of the world dystopia births yet another future.

In this chapter I have explored the links between post-Anthropocene futures and the nonhuman, drawing on theories of collective telos first articulated by Lacan and theorists of queer negativity to distinguish between the *sinthomosexual* and the enstranged, and to explain where and why nonhuman posthuman futures arise. Engagement with instances of nonhuman alterity such as those featured in Octavia Butler's *Xenogenesis Trilogy* can, I have suggested, ease the end of Man and help us to imagine new ways of living beyond the Anthropocene. Narratives of this sort fit into a subgenre of post-apocalyptic narrative that I call end of the world dystopia, and this subgenre becomes more prevalent in contemporary culture as anxieties about anthropogenic climate change increase. In exploring the unknown futures beyond the Anthropocene, these narratives suggest the as of yet unexplored utility of the posthuman to queer theory and other fields of minoritarian inquiry. In the subsequent chapter, I take up two narratives which invoke the Black posthuman, each of which offers its own unique challenges and affordances in articulating post-Anthropocene futurity.

**Because You “Can’t Fix What’s Broken”: End of the World
Dystopia and the Black Posthuman in *M Archive* and *Fast
Color***

[the black American woman] became instead
the principal point of passage between
the human and the nonhuman world.
~ Hortense Spillers¹²¹

"[s]peaking things of blackness,
about the void. The endless void.
The bottomless pit surrounding you."
~ Sun Ra¹²²

In Julia Hart’s *Fast Color* (2018), society frays under the strain of an 8-year drought. Protagonist Ruth flees a cadre of government scientists, returning to her childhood home in the Texas panhandle with the hopes that her mother, Bo, can teach her to control her telekinetic abilities. The film’s wide opening shot shows a decrepit fence line stretching across a bare, sun-beaten landscape. Bo’s voiceover sets the post-apocalyptic stage: “The world’s gonna’ die. I can feel it coming. We knew this would happen. That sooner or later man’s reckless behavior would catch up with us.” Bo, Ruth, and Ruth’s 8-year-old daughter Lila are descended from a long line of Black women with special powers, but Ruth’s gifts are exceptional: she has seizures that cause small earthquakes. Ruth has used heroin for many years to control these seizures. Once home and sober, she must atone for the damage done by her drug use, reconnect with Lila, and master her abilities before government men can track her down.

Bo’s predictions will be tied, over the course of the film, to anthropogenic climate change, the decline of global capital, and the end of the humanist project. Literary and filmic

¹²¹ Spillers, “Interstices” p. 395

¹²² Sun Ra et al., “Space Is the Place.”

culture present us with more and more such Black voices: messianic, extrahuman testaments to the decline of Man, linked to anthropogenic climate change and the ravages of global capital. In the midst of a fraught and contentious debate about the exclusions of humanism and, by extension, posthumanism, this chapter follows the trail of creative works attesting to, exploring, and celebrating the post-apocalyptic Black posthuman. This project elaborates a three-part argument which includes: first, a high-level assertion that nonhumans and the alterity of nonhuman existence present a pathway to new and necessary kinds of futures beyond the Anthropocene; second, in following this assertion, an argument for the continued utility of the posthuman (emphasizing the literally nonhuman) in discourses addressed to queer theory and Black studies; and third, the definition of a unique genre of post-apocalyptic narrative called end of the world dystopia, which imagines and often celebrates what comes after the end of Man.

This chapter advances these arguments within the context of Black studies, as illustrated by Alexis Pauline Gumbs's *M Archive* and the film *Fast Color*. *M Archive* is a book-length collection of poems which presents a series of future historical narratives. It is narrated by anonymous archivists during and after the end of Man, and catalogues the rise—from human bodies and cultures—of distinctive new biologies and forms of living. The collection is rich in environs, voices, and futurity. It is also openly self-theorizing, connecting the Black posthuman to the transatlantic slave trade, global capital, and anthropogenic climate change.

Both works are examples of the subgenre I call end of the world dystopia, works which look forward to the end of Man and take place on a deeply damaged, uninheritable world. They feature protagonists who, either because of their Blackness or because of special powers figuratively associated with their Blackness, hold an ambiguous or alienated status with regard to the boundaries of the human. Of all the works selected for this project, *M Archive* is the most

explicit example of nonhuman and posthuman alterity as an access point to futures beyond the Anthropocene. By depicting Black protagonists transitioning to or finding a home in posthuman or nonhuman futures, both *M Archive* and *Fast Color* suggest that a Black posthuman future is implicit in the end of Man, consequently presenting a clear case for the utility of the posthuman in Black studies.

In this chapter, I first examine the position these works take with regard to both systemic racism and the generational trauma resulting from the transatlantic slave trade and chattel slavery. Both *M Archive* and *Fast Color* link racial injustice, environmental degradation, liberalization, and market capital (which, *M Archive* in particular suggests, results directly from the exclusionary definition of Man)—and then look beyond the end of these structural agglomerations to nonhuman or posthuman futures. I then outline arguments from Black studies which suggest that Black posthuman futurity endorses or reinforces an exclusionary definition of Man. *M Archive* and *Fast Color* complicate this interpretation of Black posthuman futurity by both acknowledging the exclusionary definition of Man and its traumas and abjuring the possibility of repair, investing instead in what will come after the human.

“As a measure of survival”: Systemic Racism and the Exclusionary Construction of the Human in *M Archive* and *Fast Color*

Early in *M Archive*, a narrator attempts to explain anti-Black racism in the era preceding the end of Man. “Individualism,” she says, was “antithetical to the dark feminine, / which is to say, everything.” People, “even many of the black women [...] believed they had to hate black women in order to be themselves.”¹²³ The characteristic tone of this loose-knit collection of seven prose poem chapters is particularly apparent in these early pages: ideas common to contemporary

¹²³ Gumbs, *M Archive*, 6

life, such as individualism, are discussed as outdated and erroneous concepts, and the humans of the past described not as a prior “we,” but a strongly differentiated “they.” Some Black women, the poem continues, “believed they them- / selves were other than black women”:

which was a false and
impossible belief about origin. they were all, in their origin, maintenance, and measure of survival more parts black woman than anything else. it was like saying they were no parts water. (which they must have believed as well. you can see what they did to the water.)¹²⁴

Passages such as these fuse environmentalist critiques of individualism with contemporary discourse on anti-Black racism. They look back on our present to both depict a deeply systemic anti-Black racism and emphasize the philosophical and taxonomic divisions necessary to the maintenance of those beliefs. To explore these strategies further, I first expand on *M Archive*’s self-theorizing introduction, referring to the work of Michel Foucault, Sylvia Wynter, and Alexander Weheliye to articulate a working definition of the exclusionary construction of Man. I then point to passages from both *M Archive* and scenes from *Fast Color* which allude to this exclusionary definition. Both works link this definition of Man to economic liberalization, global capital, and environmental degradation. I reference the work of Rob Nixon, Ian Baucom, and Jean Baudrillard in exploring these links.

M Archive is a future historical account—Gumbs coins the term “speculative documentary”—of the upheavals resulting from anthropogenic climate change. This narrative strategy is not without its peers in contemporary literature. The narrative conceit closely resembles the more explicitly environmentalist text, Oreskes and Conway’s *The Collapse of Western Civilization*, a fictional future history of the fall of Man under the strain of

¹²⁴ Gumbs, *ibid*, 6-7

anthropogenic climate change.¹²⁵ However, the two works differ greatly in tone, with *Collapse* more closely imitating an academic publication, and the narrators and ways of living captured in *M Archive* tending toward oral narrative.

The asterisk in the title to the first chapter, “From the Lab Notebooks of the Last* Experiments,” is one signal of the place academic scholarship holds in the collection. It is explained by the brief but very important footnote: “Last is a verb.”¹²⁶ Though the presence of that footnote—especially within a collection of poetry—evokes academic conventions, its quixotic contents do not offer citational or supplemental information. The anthimeric nature of “last,” the mental strain required to consider a verb where one should find an adjective, these elements destabilize the reader’s position and authority, providing important cues about how to read the text: what we will find here is not necessarily our language, definitely not our time, and assuredly not our world. Academic authority—as well as our general syntactical assumptions—are not-too-subtly undermined. And the simple temporal title referring to the “last experiments” is newly freighted with a sense of contingency and politics. What does it mean to “last” in this context? What were these experiments about or for lasting, and why did they come to an end? The footnote’s assertion thus isolates the word uncomfortably from its neighbors, lifting it from its context and alluding to a key aspect of end of the world dystopia: lasting, surviving.

The introduction to *M Archive* states that the volume “depicts a species at the end of its integrity, on the verge or in the practice of transforming into something beyond the luxuries and limitations of what some call ‘the human,’” and that it “attend[s] to Black bodies in a way that doesn’t seek to prove that Black people are human but instead calls preexisting definitions of the

¹²⁵ Gumbs, *ibid*, xi

¹²⁶ Gumbs, *ibid*, 3

human into question.”¹²⁷ This claim alludes to a longstanding line of thought in Black studies which builds on Foucault’s description, in *The Order of Things*, of the category of “Man” as a modern invention originating in the epistemology of Enlightenment humanism. Sylvia Wynter builds on Foucault’s claims, pointing out that this new secular version of the human excluded Black and indigenous peoples, and defined itself based on those exclusions, which originated with and became the foundation for secular humanism.¹²⁸ Alexander Weheliye extends Wynter’s arguments into the systemic and affective domains. Alluding to Agamben’s work on *homo sacer* (which builds on the ancient Greek distinction between *zoê*, or “bare life,” and *bios*, which names “qualified” or politically legitimate life). In Weheliye’s analysis, the exclusionary definition of Man described by Wynter served to establish and maintain whole human populations as mere *bios*, problematizing the subjectivity of nonwhite humans both structurally and psychologically. According to Weheliye, the exclusions of Man do not merely undermine but rather fully negate the humanity of nonwhite subjects, operating in diverse ways within human cultures and psyches.¹²⁹

This evolution in the definition of the human described by Wynter naturally affected any governments and markets touched by colonialism. Wynter points to a sixteenth century dispute between Bartolomé de las Casas and Juan Ginés de Sepúlveda regarding the humanity of the indigenous peoples in the Americas. Las Casas argued from the tenets of traditional Christian theology, which predicated the humanity of individuals on their degree of spiritual perfection. Indigenous Americans had cultures advanced to a degree which rivaled ancient Greece, Rome,

¹²⁷ Gumbs, *ibid*, p. xi

¹²⁸ Wynter, “Unsettling the Coloniality of Being/Power/Truth/Freedom”, p. 264

¹²⁹ Weheliye, *Habeas Viscus*, p. 27-8

and Egypt, but they had never before been exposed to Christianity. It would therefore not be logical to deny them human rights based on their lack of “civilized” behavior as dictated by Christian teachings. Sepúlveda’s counterargument focused on reason rather than spiritual perfection. Because the indigenous peoples of the New World lack reason, Sepúlveda argued, they are by nature slaves.¹³⁰ Wynter marks the transition from Christian faith to reason as the basis for humanness as follows:

the new criteria of Reason would come to take the place of the medieval criterion of the redeemed spirit as its transumed form [...] the master code of symbolic life [...] and death [...] would now become that of reason/sensuality, rationality/irrationality, in the reoccupied place of the matrix code of Redeemed Spirit/Fallen Flesh.¹³¹

This debate ultimately informed Spanish colonial policy, justifying slavery and violent coercion of indigenous Americans and no doubt increasing the wealth of the Spanish colonies. Wynter interprets this debate to indicate that the construction of Man is not merely an ideological or theoretical question but contemporaneous with and instrumental to the expansion of early global capital.

This is the background against which Gumbs declares that the volume “depicts a species [...] on the verge [...] of transforming into something beyond,” and “attend[s] to Black bodies in a way that doesn’t seek to prove that Black people are human but instead calls preexisting definitions of the human into question.”¹³² *M Archive* self-consciously places itself at a very specific point in the history of discourse on humanism and human rights, putting weight on the relationship of that discourse to global economic structures. The text acknowledges the claims of scholars like Wynter and Weheliye but asks, at the same time, whether proving that Black people

¹³⁰ Wynter, “Unsettling the Coloniality of Being/Power/Truth/Freedom”, p. 283-289

¹³¹ Wynter, *ibid*, p. 287

¹³² Gumbs, *M Archive*, p. xi

are human is, any more, a reasonable or productive strategy. Given that the poetry volume goes on to depict the end of Western culture, global capital, and most of the planet's human population as a result of environmental degradation and the rise of distinctive populations adapted to environs no humans could in good health inhabit, the introduction's preemptory declaration that it "doesn't seek to prove that Black people are human" is radical departure from contemporary humanist rhetoric and figuration in Black studies. *M Archive* does not seek to carry Man or even humans into the future; it seeks to carry *Black people* into a future after Man—one that is largely emptied of humans. In no other work in my archive is the case for the continued utility of the posthuman in identitarian discourse so clearly stated. In fact, the way in which both *M Archive* and *Fast Color* abjure social justice appeals and a now almost essential tradition of reference to generational trauma in African-American literature in favor of posthuman futurity—in conflict with much Black studies work on science fiction and film—presented a unique challenge to me in formulating my argument. I emphasize Gumbs' introduction to make clear that this argument is the result of a close reading of my archive and I am merely, and to the best of my abilities, following the theoretical and figural lead of the works themselves.

M Archive effects this radical departure from contemporary humanist claims by depicting an array of Black posthuman futures, all coming after one of many "apocalypses."¹³³ Each originates from and is shaped by both the systemic racism of the world of Man and the environs in which the survivors find themselves. For example, the "black oceanists" train themselves to inhabit the depths, the skins of their wet suits "not / quite as thick, nowhere near as constricting as what they already knew." They stay below for longer and longer stretches, and eventually

¹³³ Gumbs, *ibid*, p. xi

“plan for a plan that would sustain gen- / erations below.”¹³⁴ A subsequent poem documents alterations to human physiology brought on by rising sea levels, bodies beginning to “emulate the am- / phibians,” giving rise to hermaphroditism, parthenogenesis, nictitating membranes, and “historically unprecedented numbers of proud intersex leaders.”¹³⁵ Others adapt to living underground, as trees, or in the air. Such passages depict a phenomenon I have anticipated elsewhere, that the climactic change brought about by factors linked to the exclusionary definition of Man, including environmental degradation and economic injustice would, as a result of both epigenetic and genetic change, push some human populations quite literally outside the boundaries of the biologically human.

In *M Archive* these nonhuman futures are recounted from their own present, by speakers who have lived through or been born to the transition. Some accounts are third person, some first. Most infer a collective rather than an individual. “[I]t became an abstraction to stand up straight” recounts one speaker from “Archive of Dirt.” These underground dwellers are, like all nonhuman posthuman populations in *M Archive*, shaped by their environs: “the reality of underground living tilted them forward and they / could see their path.”¹³⁶ In describing the underground shelters created by groups of youths in caves and aquifers, the speaker’s account

¹³⁴ Gumbs, *ibid*, p. 10

¹³⁵ Gumbs, *ibid*, p. 12; This topic is, at present, extremely controversial, but given the degree to which I utilize biological knowledge in this project, I feel obligated to note that hermaphroditism and intersex are not, as the above citation suggests, the same. Mammals, including humans, are sexually dimorphous: all individuals produce either male or female gametes and never both. Intersex is a cultural label for human individuals who have one of several developmental disorders which cause the genitalia to be atypical or ambiguous. Intersex individuals still have either male or female gametes and never both. This does not preclude the possibility of convergent evolution reintroducing hermaphroditism in a population of mammals, but humans historically labelled as hermaphrodites have not been functional hermaphrodites in a biological sense, and a true human hermaphrodite would not be intersex, since in the case of a true hermaphrodite the development of both male and female gametes, and both male and female reproductive structures, would indicate a healthy and complete process of sexual development.

¹³⁶ Gumbs, *ibid*, p. 61

again uses the plural first person: “we marveled at it. we marvel at it still.”¹³⁷ These accounts in chapters 1 - 5, the chapters which characterize the text’s “apocalypses” and their posthuman aftermath, are presented largely in prose poem format, without apparent intentional line breaks and with no clear pattern in the length of stanzas, suggesting a variety of individual survivors trained in the composition of prose.

These survivors are described in the introduction as, “far-into-the-future witnesses to the realities we are making possible or impossible with our present apocalypse.”¹³⁸ These “witnesses” hold a particular place within the panoply of “survivors” depicted in apocalyptic and post-apocalyptic narratives. As described in the introduction, contemporary apocalyptic narratives follow the formulaic of the American Jeremiad, ending with a scientific *deus ex machina* which returns the world to a morally cleansed but relatively unchanged neoliberal humanist state.¹³⁹ Whether the narrative is apocalyptic or post-apocalyptic, the protagonist is also the representative (ie. chosen) survivor of the moral universe of the narrative. Post-apocalyptic narrative differs from apocalyptic narrative in not offering the same restorative moral reset. Instead, post-apocalyptic narrative continues past apocalypse, depicting what comes after the humanist project. *M Archive*’s witnesses are survivors of this sort. They are presented as those chosen, by the moral universe of the artifact, as worthy of survival, but their world will never return to what it once was.

In the worlds of apocalyptic and post-apocalyptic narratives, the conditions for survival operate on plot and characterization at so many levels that they could accurately be thought of as

¹³⁷ Gumbs, *ibid*, p. 60

¹³⁸ Gumbs, *ibid*, p. xi

¹³⁹ Goldsmith, *Unbuilding Jerusalem*, p. 31; Bercovitch, *The American Jeremiad*, p. 6-18

formal constraints (fast zombies, slow zombies, etc.). Consequently, these conditions require different kinds of survivors, with apocalyptic narrative tending to befall extremely fit, intelligent, capable, male cultural everymen. Post-apocalyptic narratives, by contrast, often include nonhuman agents as characters and protagonists, and usually feature human survivors who are othered in some way relative to the construction of the human.

I mention in the introduction that this contrast between the apocalyptic and post-apocalyptic protagonist plays out over subsequent series of AMC's *The Walking Dead*, with Rick's band growing increasingly diverse and Rick himself ultimately leaving the series. In *M Archive* the position of the post-apocalyptic protagonist as outside the human, though effected by racial exclusion, is portrayed as a clear advantage. One account from "Archive of Dirt" describes a group from an underground community ascending to the surface together, checking the quality of the sulfurous air, and making other observations. They are said to wait—not for aboveground conditions to improve, but for the "earthwalkers" (surface-dwelling humans) to be "ready for depth"—to be ready, that is, for understanding and change.¹⁴⁰ These are not human survivors, hunkered in underground bunkers and waiting for Earth to heal; they are nonhuman agents descended from humans, and they find the remaining humans too primitive to engage.

This is not to say that *M Archive* does not concern itself with or portray systemic racism. The world of *M Archive* is one in which, after a brief period of technological advancements exceeding our own, Earth's climate degrades to an extent which makes it impossible to live on the planet's surface with a normative human physiology. Teleportation is invented, drastically reducing carbon emissions, but subsequently abandoned because the process requires human

¹⁴⁰ Gumbs, *M Archive*, p. 63-4

blood.¹⁴¹ As the planet warms, those with less melanin come to be perceived as less attractive.

Scientists attempt to extract and implant melanin into white recipients, without success.¹⁴²

Finally, in a cataclysmic event, apparatus being used to conduct research on Black bodies ceases to function.¹⁴³ There is a kind of constant and visceral link between anti-Black racism and the end of the world.

Fast Color is set in a time much closer to our own. The systemic racism recounted with a kind of collective third-person neutrality in *M Archive* is viscerally apparent in the action scenes of *Fast Color*. Ruth's first appearance—in which she runs from an abandoned building, steals a car, and is passed as she flees by police cars speeding towards what, in another kind of film, would have been the scene of her crime or victimization or both—is immediately evocative of the present-day police brutality against Black US Americans. The viewer learns, in subsequent scenes, that Ruth is on the run from the authorities because of her unique abilities, which she struggles to control. One then understands the blaring car alarms in the preceding scene to have been triggered by an earthquake resulting from one of Ruth's seizures. Ruth's abilities cause her to be pursued by the government, and that pursuit causes her to flee, committing petty crimes in the process and prompting further pursuit. The government hunts her not because of her Blackness, but because of her abilities. But the constant recurrence of police officers and government operatives figuratively links her Blackness and her abilities. In fact, it is one of the central questions of the film whether the two are distinguishable—whether, that is, Ruth can and will choose between them—and Ruth herself does not master her powers until she (at least

¹⁴¹ Gumbs, *ibid*, p. 152

¹⁴² Gumbs, *ibid*, p. 15

¹⁴³ Gumbs, *ibid*, p. 25, “the universe always knows when she is being disrespected. she is patient, but she is not *the* patient. and so lightning struck where it had to, and all the monitors linked to dark flesh went dark.”

internally) breaks that link. Precisely when Ruth's seizures cease to be a figural allusion to generational trauma from the transatlantic slave trade is when she gains control of her powers and subsequently escapes with her daughter to effect a new Black posthuman.

Before addressing in greater detail those final scenes in *Fast Color*, and their significance with regard to the posthuman in Black Studies, I want to explore a shared line of reasoning present in both artifacts, with regard to global capital, market liberalization, and environmental degradation. In the subsequent section I look more closely at the connections *M Archive* and *Fast Color* make between the environment and economic aspects of the world of Man.

“which is to say, breathing”: Slow Violence in *M Archive* and *Fast Color*

In an early passage in *M Archive*, a narrator recounts how a previous generation realized that “one body” would not be sufficient for the project of “black feminist metaphysics. which is to say, breathing.” In denying the “the black simultaneity of the universe,” this account attests, humans denied themselves the ability to breathe. They then caused the world to resemble their own experience: “they hated the black women who were them- / selves. a suicidal form of genocide. so that was it. they could only / make the planet unbreathable.”¹⁴⁴ These concluding lines of the poem link the exclusionary construction of Man to anthropogenic climate change, suggesting that Enlightenment individualism was a way of separating oneself from Blackness in particular. A subsequent account details how, because of increasing toxicity, humans suffered paralyzed or deadened extremities. A parenthetical statement invokes the effects of fracked water: “you’ll remember that one of the first results of the fracked water was deep interruptions in cir- / culation.” As a result, the “idea of the heart had to change.”¹⁴⁵

¹⁴⁴ Gumbs, *ibid*, p. 6-7

¹⁴⁵ Gumbs, *ibid*, p. 8

Passages like this gesture toward the kind of epigenetic changes—in response to environmental factors like air quality, food availability, and housing conditions—now cited in the humanities and social sciences. Samantha Frost refers to these changes as “bioculturing,” elaborating a vision of cultural and biological forces which affect developing and mature bodies in heritable ways, potentially influencing the evolutionary trajectory of *homo sapiens*.¹⁴⁶ In the case of *M Archive*, these heritable changes to gene expression—while surely fatal for some—are also the origins of the Black posthuman. “Heart” often signifies doubly in twentieth-century poetry, referring to both the heart organ and an emotional state or constitution. This passage from *M Archive* portrays a time when even this dual meaning is suddenly not expansive enough. Because biology and culture are linked, and physiological changes demand a change in consciousness, when the the physiology of circulation is massively altered or interrupted, not merely the word but also the understanding of the organ must change. This coheres with Gumbs’ repeated use of the phrase “which is to say” to colloquially juxtapose terms or concepts. For example: “black feminist metaphysics, which is to say, breathing” and “the dark feminine, / which is to say, everything.”¹⁴⁷ The speakers use our language, but constantly revise and redouble its meanings, effecting a sense of intellectual insufficiency and embodied change.

An account from “Archive of Dirt” explores the impact of water scarcity. The “children of the west” discuss on a few remaining web sites how they might “ever repay the impact they had on water, the way divestment had turned the rivers into cesspools, the way corporations had eradicated the functionality of public water systems.” The discourse on water scarcity becomes a discourse about debt, and humans come to understand what “the women who had been carrying

¹⁴⁶ Frost, *Biocultural Creatures*, 156

¹⁴⁷ Gumbs, *M Archive*, p. 6-7

water through the twentieth century knew all along”: “there is no debt that can be repaid.”¹⁴⁸ This and *M Archive*’s other “apocalypses” are examples of what Rob Nixon has described as “slow violence”: “a violence of delayed destruction that is dispersed across time and space, [and] typically not viewed as violence at all.” Nixon identifies slow violence in human practices which, over multiple generations, result in environmental degradation, with a disproportionate affect on poor or racialized communities.¹⁴⁹ Such passages reinforce the link between Man and anthropogenic climate change, folding the pollution effected by global capital into the category of Man and proposing a new (old) definition of debt by reconnecting value to the availability and quality of natural resources. This redefinition of debt is one of the many ways in which *M Archive* links global capital, the transatlantic slave trade, market liberalization, and slow violence.

In *Specters of the Atlantic*, Ian Baucom argues that even early in modernity, value was far less connected to the production of material goods than Karl Marx imagined. Marx may have placed value in the end-product, but in an economy with financial *techne* for the extension of credit, that value could be liberated from material goods before their existence, as soon as credit was granted.¹⁵⁰ Baucom uses legal and financial documents to show how the history of the Black Atlantic and the slave trade is tied to “the history of modern capital, ethics, and time consciousness.”¹⁵¹ In particular, the Atlantic slave trade would not have been possible without new financial tools permitting the extension of credit for periods long enough to encompass passage from the Americas to Western Africa and back. Baucom’s account suggests that

¹⁴⁸ Gumbs, *ibid*, p. 40-41

¹⁴⁹ Nixon, *Slow Violence and the Environmentalism of the Poor*, 2

¹⁵⁰ Baucom, *Specters of the Atlantic*, p. 17

¹⁵¹ Baucom, *ibid*, p. 31

colonialism and the inception of global capital flow naturally from the construction of Man.

Which means, by extension, that any material limit on or threat to global capital also represents an ideological threat to the category of Man.

Of course the liberalization of value described by Baucom accelerated greatly towards the end of the twentieth century. Jean Baudrillard locates in late capitalism an impetus to the flattening and homogenization of value, which converts and then mobilizes assets, essences, and bodies into modes of electronic transfer.¹⁵² All things, under this new system of exchange, become flat, and the real commodity is supplanted by the act of exchange. The market is reconstituted as “an ecstatic form of the circulation of goods.”¹⁵³ This frenetic liberalization of value, and the ability to generate value through pure exchange, can be the only logical response of an economic system which has reached the very real material limits of the planet but is still, in the words of Imre Szeman, “dependent on continuous expansion.”¹⁵⁴ Most contemporary end of the world dystopia portrays the end of this accelerated liberalization, with value figuratively or rhetorically retreating to essential material assets like water, bullets, gasoline, alcohol, and antibiotics.

Both *M Archive* and *Fast Color* portray and moralize this re-materialization of value, giving voice to assertions of debt that encompass both environmental degradation and chattel slavery. Liberalized historical debt is not erased but fixed by the re-materialization of value, with incidental losses always far too costly to repay.¹⁵⁵ As the speaker of “Archive of Dirt” explains:

¹⁵² Baudrillard, *The Ecstasy of Communication*, 10

¹⁵³ Baudrillard, *ibid*, 12, 23

¹⁵⁴ Szeman, “System Failure”, p. 807

¹⁵⁵ Gumbs, *M Archive*, p. 41

Coca-Cola

alone would have to invent a free purification system, build space-ships fast enough to go to the next solar system and import stolen water from elsewhere in the galaxy to even touch a tenth of what they had done.¹⁵⁶

Precisely because the magnitude of the harm is known, and because harm redounds—via heritable changes to somatic and reproductive cells—in populations, it is unremediable. The cost of repaying these material and moral debts is simply too great, the devastation too deeply encoded in subsequent generations of both humans and nonhumans.

One way in which *Fast Color* nuances the moralization of liberalized value is “the colors,” which are depicted as an *aurora borealis*-like patina. The familial talent consists of an ability to deconstitute objects into particulate matter and subsequently reconstitute them. In an early scene, Bo transforms her lit cigarette into swirling spark and ash. Lila later forms her own wrenches from a container of metal filings. Both Lila and Bo see “the colors” after using their abilities, and Lila describes “the colors” as a shadow or after-image of these manipulations. Ruth does not see them until she gains control of her powers near the end of the film.

It could be argued that the family’s telekinetic abilities liberalize matter, unlocking the bonds between atoms or molecules and—in even the simplest examples—reducing everyday objects to particulate ash. Complicating this interpretation is Bo’s insistence that, “you can’t fix what’s broken.” For example, the family’s abilities can’t repair the glued crack in a broken bowl, only break it down into its constituent parts and put it back together—crack and all. It’s not clear how much of this constraint is real and how much originates in the family history of remaining hidden and Bo’s internalized fear of discovery. Lila assembles wrenches to fix Ruth’s truck, suggesting that with sufficient raw materials it would in fact be possible to recombine

¹⁵⁶ Gumbs, *ibid*, p. 40

matter to fix a bowl or a window. Bo's aphorism is also challenged by the larger narrative. *Fast Color* shows us over and over again that you *can* fix what's broken—and that many things that appear to be broken are not. Ellis at first appears to be a small town cop hot on the trail of a fugitive. In subsequent scenes we find out that he is Ruth's father, intent on using his position to find and protect her. Ruth, Ruth's pickup, Ruth's ability, and Ruth's relationship to her mother and daughter are repaired over the course of the film—through openness to the world and slow, deliberate hard work.

It's more accurate to say that what you cannot do, in *Fast Color*'s moral universe, is get something from nothing—make value, that is, through capitalist transport or recombination of raw materials or goods. The women's abilities, the 8-year drought, *and* Bo's aphorism all put the lie to a global market prefaced on limitless growth—on a world system dependent upon the ability to make something from nothing. Bo and Lila dissociate and recombine the atoms and molecules in an object, but they cannot make new matter—especially not water. If anything, “the colors” are a visual marker for transformations of matter: they represent an insistence on a moral accounting for the manipulation of raw materials and the fact that such conversions are not creation and value is, ultimately, tied to material resources. Ruth's apprehension of “the colors,” when she finally gains control of her powers, signals that her ability is now fully realized and in balance: she is able to both control its effects and comprehend its aftereffects. A fully conscious and morally competent operator in the material economy of the planet.

In the last two sections, I've outlined the ways in which *M Archive* and *Fast Color* link the exclusionary definition of Man, global capital, liberalization, and environmental degradation. There is an implicit argument, in both texts, that a culture prefaced on definitional exclusions leads to environmental degradation and unequally distributed ill health. And, in following, an

insistence on the irreducible value of material resources and a moral accounting for the immoderate liberalization of resources. In both cases, as I will explore in subsequent sections, these narratives concede the impossibility of comprehensive repair, looking instead outside the humanist project or beyond the world of Man to imagine new people and new ways of thinking. The following section outlines the perceived conflict between posthumanism and Black studies in order to contextualize the disavowal of recuperative claims in *M Archive* and *Fast Color*.

The “Snaky Ongoingness” of the “Endless Void”: Navigating the Discourse on Blackness and the Posthuman

There is a line of thinking, among scholars influenced by Sylvia Wynter, in which any claim to or application of the human which fails to acknowledge its exclusionary origins is implicitly racist. Theories of the posthuman, because deeply dependent upon humanism as a leaping-off point, have begun to fall into this category. One prominent example of this critique is the collection of short essays featured in the 2015 *GLQ* “Queer Inhumanisms” special issue, in which Jakkiyah Iman Jackson suggests that to employ the posthuman is to set aside current-day humanitarian claims related to the exclusionary definition of Man. A movement “beyond the human” is, according to Jackson, an attempt to move beyond race, since the human and nonhuman are constructed through racializing practices: “[w]hether machine, plant, animal, or object, the nonhuman’s figuration and mattering is shaped by [...] gendered racialization.” To address the nonhuman, to address what is outside the human, is then by necessity to address Blackness. “[M]ovement toward the nonhuman,” according to Jackson, “is simultaneously a movement toward blackness, whether blackness is embraced or not.”¹⁵⁷

¹⁵⁷ Chen and Luciano, “Queer Inhumanisms Special Issue”, 215-18

Jackson is absolutely correct that posthumanists tend not to focus on contemporary or historical racializing practices. Haraway's Chthulucene, for example, a world of "thick [...] ongoingness [...] the snaky ongoingness of earthly worlding in its pasts, presents, and futures," has very little to say about the unjust nature of our present state and states. The possibility of human/nonhuman hybridity is likewise avoided by most humanitarian discourse in contemporary critical theory.¹⁵⁸ Queer theorists Edelman, Muñoz, and Dinshaw, who do articulate queer temporalities which closely resemble Haraway's "tentacled," "coiling" vision, avoid any reference to human/nonhuman hybridity or a nonhuman posthuman. Any scholarship focused on contemporary social justice goals is likely to avoid these associations for the simple reason that to articulate a nonhuman posthuman is to link those excluded from the human, the nonwhite populations who in the past have been taxonomically and often practically assigned to a status resembling nonhuman animals, with actual nonhumans of various forms. But this does not mean that Haraway's intention is to perpetuate systemic racism. The insistence of her archives upon centering nonwhite peoples and cultural practices certainly contradicts such claims. There is, it seems, a kind of secondary conflict of interests between scholarship addressed to contemporary social justice goals and scholarship addressed to events at a geological time scale. But I am not sure it is possible or necessary to reconcile these interests. It seems perfectly reasonable to me to both support present-day humanitarian goals and find solace in the fact that humans will ultimately, through selfishness and an inability to cooperate, wipe themselves off the face of the planet, to the great relief of nearly every other organism it hosts. I agree with Wynter about the exclusionary definition of Man, and with Jackson about the link between the nonhuman and Blackness, but I still see immense value in the nonhuman posthuman.

¹⁵⁸ Haraway, "Interview by Juliana Fausto, Eduardo Viveiros de Castro, and Déborah Danowski."

Wynter herself, believing that systems of figuration have proceeded to cognitively and biologically embed the hierarchy of Man in our bodies, alludes to a new kind of rhetorical or neurobiological *techne* which will make it possible to escape the world of Man, “to attain to the position of an external observer, at once inside/outside the figural domain of our order.” Wynter offers no clear description or proof of this embedded knowledge, but her prospect of “escape” from Man, from a “master code” embedded in our bodies, reads an awful lot like anticipation of a Black posthuman.¹⁵⁹ Whether that Black posthuman is also a nonhuman posthuman might be only a matter of what sort of *techne* is required.

This post-apocalyptic disavowal of the humanist project extends, I believe, into the Afro-Futurist archive. In his magisterial experimental science fiction film, *Space is the Place*, the *avant-garde* 1970s jazz musician Sun Ra asserts that he is “[s]peaking things of blackness, about the void. The endless void. The bottomless pit surrounding you.” That is, he intentionally situates Blackness outside of the phenomenologically and semantically known. There is a great deal of technological optimism in *Space is the Place*, but Sun Ra never connects Blackness with the human. He also positions his new world outside of history: “Equation-wise the first thing is to consider time as officially ended. We work on the other side of time.”¹⁶⁰ We could discount passages like this, and focus on the overall utopian nature of *Space is the Place*. But if we take such passages seriously, then even this seminal work of Afro-Futurism places Blackness outside of the constructed meanings and temporalities of humanism. *M Archive* and *Fast Color* merely carry this sentiment further, suggesting that with global capital (and its itinerant exclusionary

¹⁵⁹ Wynter, “The Ceremony Must Be Found”, p. 56

¹⁶⁰ Sun Ra et al., “Space Is the Place.”

definitions of the human) in its death throes, it may be materially expedient to explore the space of possibility that is the Black posthuman.

To put it another way, on a planet steadily becoming less and less able to support the global capitalist system which first necessitated and then underwrote the construction of Man and the expansion of its territory, where else do we have to go but outside the human? In a world which presages the end of Man, were “movement toward the nonhuman is simultaneously a movement toward blackness,” how could the Black posthuman not be worthy of theoretical and creative pursuit?¹⁶¹ Where, if not in those bodies and spaces *excluded* from the hierarchies of Man, might we look for new ways to live? Regardless of how we feel about the politics of looking beyond injury, in particular as pertains to present-day social justice struggles, there is a growing archive of creative works which imagine the Black posthuman in precisely this manner. These works ask us to turn from the injuries done by a ravenous economic system and its epistemology and to seek in that epistemology’s blind spots, in what it marks as “the void,” new ways of thinking and being. Regardless of what we might think about the turn from ontological trauma, we cannot do justice to works like *M Archive* and *Fast Color*, nor to Octavia Butler’s *Xenogenesis Trilogy* and Colson Whitehead’s zompocalypse novel *Zone One*, without entertaining the possibility of this turn. This does not mean, of course, that as thinkers or creators we need pretend that the history of global capital and humanist epistemology does not build on injurious racializing practices. All of these works robustly attest to historical and ongoing practices of racialization. These works also suggest, however, that this racialization, so foundational to our present world system, is now its Achilles heel. In such a world, the imaginary of the Black posthuman is not only imminent but also necessary. But to embrace such a world, as

¹⁶¹ Jackson, “Outer Worlds”, p. 217

Zakkiyah Jackson has suggested, does mean relinquishing certain kinds of humanitarian appeals as an end-goal—or at least restricting them to the most immediate and practicable time scales. In the subsequent section, I build on Aida Levy-Hussen’s work on African-American literature to explore the ways in which *M Archive* and *Fast Color* both build on and subsequently turn away from a reparative politics with regard to chattel slavery and generational trauma.

Autopornotroping and End of the World Dystopia’s Turn from Generational Trauma

Before her first on-screen seizure, which takes place in a run-down small town hotel, Ruth carefully removes fragile items from the bedstands and walls, then binds her raw wrists and ankles to the bedframe. Her ultimate posture, spread-eagled on the bed, evokes the historical practices of chattel slavery, including the sexual violence against Black women so common in the Antebellum South. *Fast Color*’s portrayal of Ruth’s seizures, and her relationship to her powers, place this film in dialectic with other works of American literature which connect contemporary Black life to the transatlantic slave trade and chattel slavery. *M Archive*, too, alludes to this concept of generational trauma. In the previous section, I suggested that end of the world dystopia often presents Black posthuman futures as a movement beyond the legacy of chattel slavery and its original association with global capital and the construction of Man. This places end of the world dystopias in complex relation to the recent tendency, in Black studies, to emphasize ontological trauma. What *Fast Color* and *M Archive* portray is, I argue, something else: not a disavowal of history, but also not a humanist appeal. Establishing, but then turning from, their overt connections to the transatlantic slave trade, these works look far beyond the end of Man.

In this section, I explore this turn from the articulation of historical injury to the production of futures beyond the human—a turn which I believe is common to end of the world

dystopia—in the specific context of Black literature and film. I also briefly explore, because of their close proximity, contemporary epigenetic research, Spillers’ concept of the hieroglyphics of the flesh, and the social sciences research which has documented the ways in which epigenetic research has recently been leveraged against Black bodies. This is fraught territory, upon which many and conflicting claims are staked. What I seek is, simply, an explanation for why so many end of the world dystopias feature Black survivors or Black posthuman futures. As always, there is much to mourn in the pasts they acknowledge. But there is also much to celebrate in the futures they depict.

Elsewhere in this project, I have invoked epigenetic change for its transformative potential—its potential, in combination with traditional Darwinian evolutionary pressures on genetic traits, to bring about significant and permanent changes to human populations. Changes which, I suggest, may in fact push future generations outside the margins of what we now recognize as human. I consider this to be a positive application of contemporary research on epigenetic change, an application formulated in pursuit of positive outlooks on a dire prognosis for the future of the planet and its survivability. But this optimistic application of epigenetic research is not the only and not by a long shot the most common application of epigenetic research in critical theory. There are certain implicit similarities between Black studies’ articulation of generational trauma and epigenetic change, and these similarities should inform any exploration of generational trauma as represented in narratives which represent or reference the transatlantic slave trade or the practices of chattel slavery in the Antebellum South. Before engaging in an extensive discussion about generational trauma, it is important to review these connections. For this reason, I begin this section by summarizing Hortense Spillers “hieroglyphics of the flesh” and explaining its similarity to contemporary concerns about

negative epigenetic change. I also make note of social science research documenting the ways in which neoliberal medical communication and surveillance hold racial minorities—pregnant women in particular—responsible for avoiding or reducing factors likely to result in negative epigenetic change. And I explain the agnostic nature of epigenetic mechanisms—my reason for attempting to grossly distinguish between “positive” and “negative” epigenetic changes. I then turn to the depictions of generational trauma in *M Archive* and *Fast Color*, using the work of Stephen Best, Aida Levy-Hussen, and Wendy Davis to explain the turn, in both artifacts, away from generational trauma as an ontological framework from which to construct Black futurity.

In “Mama’s Baby, Papa’s Maybe,” Hortense Spillers argues that the transatlantic slave trade established a set of brutal racializing practices, a “hieroglyphics” which reduced enslaved humans to “flesh,” a category outside the human:

I would make a distinction in this case between “body” and “flesh” and impose that distinction as the central one between captive and liberated subject-positions. In that sense before the “body” there is the “flesh” that zero degree of social conceptualization that does not escape concealment under the brush of discourse, or the reflexes of iconography.¹⁶²

Whippings, beatings, the submission of female bodies to violence typically reserved for males, and the devastation of kinship by separating children from their mothers all performed this work of dividing those with rights from those without: “These undecipherable markings on the captive body render a kind of hieroglyphics of the flesh whose severe disjunctures come to be hidden to the cultural seeing by skin color.”¹⁶³

So effective is this reduction to flesh, according to Spillers, that Blackness takes on a quality of absolute externality to culture. Spillers refers to this as vestibularity: “black is

¹⁶² Spillers, “Mama’s Baby, Papa’s Maybe”, p. 67

¹⁶³ Spillers, *ibid*, p. 67

vestibular to culture [...] the black person mirrored for the society around her what a human being was *not*.”¹⁶⁴ Spillers argues that, as a result of the racializing practices utilized during the transatlantic slave trade, Black women in particular came to figure this reduction to flesh.¹⁶⁵ This is why, to this day, culture struggles to portray the sexuality of Black women. Both the oversexed and desexed black woman serve the same purpose, to be a sexual object without agency—a sexualization of the flesh, not of a human.¹⁶⁶ Where for Wynter the original sin is an epistemological sin of definition by exclusion, the construction of Man by withholding humanity from a large percentage of the world’s human population, for Spillers the subjectifying practices specific to chattel slavery are what position Blacks and Black women in particular outside the boundaries of the human. Spillers was convinced that the hieroglyphics of the flesh produced heritable effects, injuries which persisted from generation to generation:

We might well ask if this phenomenon of marking and branding actually “transfers” from one generation to another, finding its various *symbolic substitutions* in an efficacy of meanings that repeat the initiating moments? [...] This body whose flesh carries the female and the male to the frontiers of survival bears in person the marks of a cultural text whose inside has been turned outside. The flesh is the concentration of “ethnicity” that contemporary critical discourses neither acknowledge nor discourse away.¹⁶⁷

There are clear similarities between what Spillers describes here, the idea that the flesh “carries” damage from generation to generation, that the violence meted out on the bodies of Black slaves in the Americas in a sense *produced* the ethnicity their descendants came to inhabit, and contemporary ideas of inherited trauma buttressed by epigenetic research. We have even produced commensurate effects in animal research. For example, Dias et al have exposed mice

¹⁶⁴ Spillers, “Interstices”, p. 155

¹⁶⁵ Spillers, “Mama’s Baby, Papa’s Maybe”, p. 75

¹⁶⁶ Spillers, “Interstices”, p. 155

¹⁶⁷ Spillers, “Mama’s Baby, Papa’s Maybe”, p. 67

to electric shocks after filling the cages with the smell of oranges. Two generations later, despite the fact that the offspring were not raised by their biological parents, the descendants of these mice demonstrated an exaggerated stress response when exposed to the smell of oranges. These descendants were subsequently found to have altered methylation on certain olfactory genes—ostensibly making them more alert to a scent that would signal the possibility of pain or distress.¹⁶⁸

While conducting such research on humans would be patently unethical, there are population studies which suggest similar phenomena in humans. Babies gestated during the Dutch Hunger Winter of 1944, for example, had higher rates of obesity and chronic illness as adults.¹⁶⁹ It is no longer merely a critical theorist's hunch that trauma—like almost everything else in an organism's environment and especially during development—produces heritable changes to gene expression. Whether classified as structural or physical violence, society's markings and brandings undoubtedly manifest in bodies and transfer from generation to generation. Neither Wynter's conjecture about the rhetorical-neurobiological encodings of racial hierarchies nor Spillers' "hieroglyphics of the flesh" are now necessary to justify this line of reasoning. The mechanisms—albeit as of yet poorly documented and minimally investigated—have been found in microbiology.

The Dutch Hunger Winter study is particularly distressing because it suggests effects far beyond decreased metabolic rates—which, it could be argued, are a reasonable adaptive response to decreased food stocks. Having a lower metabolic rate is only a bad thing when calories are

¹⁶⁸ Brian G Dias and Kerry J Ressler, "Parental Olfactory Experience Influences Behavior and Neural Structure in Subsequent Generations."

¹⁶⁹ Painter, Roseboom, and Bleker, "Prenatal Exposure to the Dutch Famine and Disease in Later Life"; Schulz Laura C., "The Dutch Hunger Winter and the Developmental Origins of Health and Disease."

overly plentiful. Individuals gestated during the Dutch Hunger Winter developed metabolisms adapted to relative scarcity. They were thus well adapted to the conditions in which they were gestated but poorly adapted to the high availability of calories they subsequently encountered for most of their lifetimes. But there are some indications that severe in utero calorie restriction had also affected intelligence levels and increased the likelihood or severity of age-related cognitive decline.¹⁷⁰ It is far more difficult to explain away these kinds of effects as adaptive in any compassionate and humanitarian light. And also very difficult to tease out the differences between epigenetic changes in the Dias et al. sense and the obviously deleterious results of plain old gestational malnutrition. I suspect that while moderate calorie restriction might epigenetically alter metabolism but not much else, which would subsequently increase the likelihood of chronic illness associated with obesity without parallel negative affects on other tissues and organs, there is a tipping point related to nutrient deficiency, beyond which certain developmental needs are only partially or insufficiently met. This is probably—given what we know about the very specific nutrients required to construct the myelin sheath, for example—the category into which deleterious effects on intelligence levels and age-related cognitive decline are more likely to fall. But a case of development impeded by severe malnutrition is different from a case of gene expression altered by calorie restriction. And unfortunately it would take many, many controlled animal experiments to even begin to quantitatively determine that difference.

I pause to make these distinctions because a claim such as the one I've made above, a claim linking the idea that the expression of certain heritable, genetic traits affecting behavior with Spillers' "hieroglyphics of the flesh," should be presented only with a very careful parsing of developmental processes, organ systems, and the significant limitations of medical research.

¹⁷⁰ Schulz Laura C., "The Dutch Hunger Winter and the Developmental Origins of Health and Disease."

Given the early state of the science and the complexity of development and gene expression, it exceeds my intellect to imagine how we might fairly and reasonably proceed with social justice claims that employ epigenetic changes as a kind of historical evidence. How could we locate individual heritable changes, including methylation and other mechanisms, and link them to explicit causes? Especially in the case of multiple generations of people across a vast geographical area? And however unpleasant this truth may be, it would certainly also be found that survivors of these conditions manifested some epigenetic alterations which could only be interpreted as beneficial. We don't, as a general rule, measure or identify positive epigenetic changes because things like optimal health and high intelligence are, by the culture at least, usually accepted as a kind of exceptional norm and not an aberrance. No one blessed with a highly intelligent child, for example, contests her intelligence on the grounds that it far exceeds that of her two parents. But epigenetic change is politically agnostic, and all epigenetic changes are, in the context of species survival, advantageous short-term adaptations of some sort to environmental conditions.¹⁷¹ And then we would be faced with the very challenging task of assigning different moral weights to different kinds of epigenetic change.

This is not to discount the vagaries of chattel slavery. But there are some similarities, with regard to social risk, between social justice appeals to epigenetic change and social justice appeals that gays are “born this way.” Finding the “gay gene”—or, what's more likely, the array of sex-associated “gay” epigenetic changes or markers—will probably result in attempts at detection and perhaps prevention.¹⁷² Social science research has already identified situations

¹⁷¹ If they were not in some sense advantageous to the organism they would not measurably persist in populations.

¹⁷² Sex-associated because the developmental pathways for the male and female mammalian fetus diverge considerably. We all start out, and remain for 6-7 weeks, phenotypically female. After which point, in male embryos, the development of testes and other male primary sex characteristics begins. This means that there is far more possibility for things to go wrong, with regard to the sex-specific development of individual organs and tissues, in males than in females.

where increased pressures of medicalization and risk management driven by epigenetic research are meted out disproportionately on nonwhite populations. Annie Menzel, Kyla Schuller, and Becky Mansfield have documented public health campaigns which employ epigenetic research to moralize health outcomes. In documented cases, these campaigns assign the responsibility to manage exposures which might cause negative epigenetic effects to pregnant mothers, and in particular to poor and nonwhite mothers.¹⁷³ This despite the obvious fact that many aspects of the built environmental—like air pollution, noise levels, and food quality—are far beyond the control of individuals.

There is a documented trend, in neoliberal medical discourse, toward risk management. And these campaigns leveraging epigenetic research could be understood as simply another example of that aggressive management of risk. But regardless of how we feel about the medical management of risk, we still know very little about epigenetics. Epigenetic changes work in close concert with and are delimited by individual genotypes that are variable across human populations (adding an unpredictability of outcome not seen in the relatively homogeneous genotypes of lab mice). For this reason, phenomena identified by epigenetic research will be most relevant at the level of human populations—not individuals. Given all of these considerations, the logic behind the moralization of epigenetic risk management is rational but not necessarily legally or legislatively practicable. But these applications of epigenetic research do demonstrate the high stakes around the interpretation of research in this field. Epigenetic research does suggest that generational trauma is real and in some cases measurable in human populations. But legitimating or arguing from that fact may result, at best, in inaccurate or unfair

¹⁷³ Mansfield, “Race and the New Epigenetic Biopolitics of Environmental Health”, p. 353; Menzel, “The Political Life of Black Infant Mortality”, p. 19; Schuller, *Biopolitics of Feeling*, p. 4, 21-25

moral judgments or, at worst, in new forms of surveillance and medicalization that will not benefit adversely affected populations.

We would need much more data to make solid claims about what is ultimately correct or incorrect in these various lines of reasoning. I have presented some arguments and research, and extrapolated from my knowledge of genetics, epigenetics, population dynamics, and the state of epigenetic research. What does seem clear to me is that ideas of generational trauma, ideas building on Spillers' "hieroglyphics of the flesh," and many critical theory interpretations of epigenetic change used to make social justice appeals, are all invested in a notion of inherited developmental changes as nearly always negative and (strangely) permanent. I share general concerns about the ways in which our constructed environments have affected and will affect human development. But I also worry that—along with all the concerns I have raised previously—we too easily lose sight of the fact that development happens over again with every generation, and alterations in gene expression occur with every new cell produced in living tissues. Epigenetic change is not only part of a complex system of trait inheritance and expression—it is also iterative both generationally and within the lifetimes of living organisms. The biologist in me wants us to consider evidence of epigenetic change—but consider it rationally and in parallel with our knowledge of how populations change in productive and adaptive ways over time. A story of generational trauma that is permanent, never adaptive, and never diluted over time cannot be biologically accurate. Not if we believe in evolution and population dynamics.

I've voiced my perspective based on my education in biology and my reading of epigenetic textbooks and research because it coheres with the story told by *M Archive* and *Fast Color*. And there are scholarly interventions in the humanities which endorse similar lines of

reasoning with regard to Black studies' use of ontological trauma which builds on the work of scholars like Spillers and Wynter. Stephen Best suggests that scholarship about slavery is "melancholy historicism"¹⁷⁴ and questions the idea that "the slave past provides a ready prism for understanding and apprehending the black political present."¹⁷⁵ Offering an archive of ephemeral or closed-off works that push against conceptions of Blackness, he questions the idea that Black belonging is to be found in a shared history of subjection, and suggests that Black scholarship should instead focus on the production of a future in which there are "none like us"—no Black populations enslaved or living in abject poverty, but also no Black scholars devoted to their own history of subjection as a paradigm for understanding the Black self, Black social identity, and society at large.¹⁷⁶ Aida Levy-Hussen builds on Wendy Brown's concept of wounded attachment to make similar claims about African-American literature. *M Archive* and *Fast Color* can both be seen as engaging with but moving beyond ontological trauma as the core to Black agency and especially Black futurity. Each can be read as attempting to resolve this ostensible conflict between the need to account for historical harm and the imperative to construct futures which exceed the sources of that harm.

I have already mentioned the early scene in *Fast Color* in which Ruth attempts to restrain herself to reduce the seismic effects of her seizure.

¹⁷⁴ Best, *None Like Us*, 15

¹⁷⁵ Best, *ibid*, 2

¹⁷⁶ Best, *ibid*, 22



Ruth undergoes a seizure, an example of “autopornotroping”

The composite of Ruth’s bound wrists, her spread-eagle posture, her arched back against the mattress, and her strained expression all allude to a scene from the 1993 film *Sankofa*, in which Mona, a Black US American model on a photo shoot at a historical slave port in West Africa, is transported to a plantation in the West Indies and experiences the physical and psychic traumas of chattel slavery. In the scene in question, Mona’s arms are held outstretched by slave traders and her back arches from the pain of being branded.



Scene in *Sankofa* in which Mona is stripped and branded

Hortense Spillers used the term “pornotroping” to describe violent depictions of the racializing practices of chattel slavery which appeal to the debased sensibilities of viewers in a manner similar to pornography.¹⁷⁷ Despite the often progressive intentions of the works in which pornotroping appears, these enactments of Black suffering, according to Weheliye, can shock and titillate an audience, “underscoring how political domination frequently produces a sexual dimension that cannot be controlled by the forces that (re)produce it.”¹⁷⁸ *Fast Color*’s seizure scenes do not portray chattel slavery, but they allude to the convention of pornotroping much like a pornographic film portraying nonconsensual sex alludes to rape. For this reason, and in particular because Ruth binds her own wrists and ankles, I will use the term “*autopornotroping*” to refer to the historical allusions the scene presents.

¹⁷⁷ Spillers, “Mama’s Baby, Papa’s Maybe”, p. 67

¹⁷⁸ Weheliye, *Habeas Viscus*, p. 90

Autopornotroping cannot, admittedly, be an appellation easily earned. Tavia Nyong'o and many others have documented cinema's long history of depicting "black (and other subaltern) people as primitives on a continuum with nonhuman animals."¹⁷⁹ From its inception, according to Alice Maurice, film has utilized the rhetoric of racialized difference as a testament to the unique specificity of the medium.¹⁸⁰ Science fiction is not an exception to this history, and Andre Carrington has argued that historically the genre has avoided the complications of contemporary race politics by addressing racial difference and racism metaphorically, in quite literally alien populations.¹⁸¹ A similar but perhaps more condemnatory case has been made for dystopia. Because many Black lives are, according to Jayna Brown, dystopian, Black lives offer "a template for apocalyptic parables of a global scope."¹⁸² Brown cites the role of Kee—the last woman in the world to conceive—in *Children of Men*. She argues that, despite and also because of what Spillers referred to as Black "vestibularity," the idea that Blacks represent, for society, "what a human being [is] *not*," dystopia presents Black or African women as a reproductive "missing link" that can save the human race:¹⁸³

Sexual fecundity is part of a fantasy of a romantic primitivist utopia. [...] in evoking Kee as the 'missing link,' the film reinforces the ways black women have been defined by their physiological function, evaluated according to the usefulness of their sexual reproductive bodies.¹⁸⁴

¹⁷⁹ Nyong'o, "Little Monsters", p. 251

¹⁸⁰ Maurice, *Cinema and Its Shadow*, p. 3

¹⁸¹ Carrington, *Speculative Blackness*, 3

¹⁸² Brown, "The Human Project", 125

¹⁸³ Spillers, "Interstices", p. 155

¹⁸⁴ Brown, "The Human Project", p. 125, 127

It is true that in *Children of Men*, the pregnant and highly instrumentalized Kee is ultimately delivered to purported safety on an oceangoing vessel, perhaps a research vessel (signaling science, purity, and technological salvation). But Brown's analysis does not distinguish between apocalypse, utopia, and dystopia—much less apocalyptic and post-apocalyptic narrative. *Children of Men* offers this ending because it is an apocalyptic narrative which concludes, much like *World War Z* or *Outbreak*, with a reinvestment in the humanist project in the form of a white and technological *deus-ex-machina*. By contrast, the Black female protagonists of *Fast Color* rescue themselves, and while their powers might save the world, it won't be saved in any humanist sense. In a twist which both evidences the cosmopolitan impulse identified by Fawaz in postwar superheroes and exposes the profound break the Black posthuman makes with other works in similar genres, Ruth and her daughter Lila set off for Rome in search of Simona Lott, a woman who, like Ruth, can “take apart the sky.”¹⁸⁵ Unlike *Children of Men*, which ends with the hope of a human race reborn, the ending of *Fast Color*, in which Ruth and Lila speed away in Ruth's rusted pickup, the windshield wipers struggling to keep pace with the rainstorm unleashed by Ruth's newly harnessed powers, is liberatory because of—rather than despite—the end of Man the film depicts.

In *The Black Body in Ecstasy*, Jennifer Nash reviews a diverse set of black feminist theoretical standpoints on Black women, sex work, and pornography. Nash concludes that all of these standpoints, which range from anti-sex work and anti-porn or pro-sex work and pro-porn, focus on the Black body as a site of graphic violation and injury, a site in need of repair. Cumulatively, these theoretical works constitute what Nash calls “recovery work,” attempting to redeem or recover the body of the black woman subjected both figuratively and

¹⁸⁵ Fawaz, *The New Mutants*, 60, 113-122

representationally to violence and violation.¹⁸⁶ Nash abjures this strategy, electing instead to plumb the same heavily scrutinized archive as an access point to Black women's sexuality.¹⁸⁷

Nash undertakes this contrapuntal project by seeking ecstasy as a "corrective" to injury, letting the paradoxical nature of pleasure and pain—the fact, for example, that some Black women might find pleasure in sexual acts which include racialized subjugation—open up the conversation on pornotroping to new possibilities.¹⁸⁸ Nash's reading method emphasizes the rich historical and technological contexts of pornographic works, treating race as *both* a technology of domination and a technology of pleasure.¹⁸⁹ Nash argues that the pornographic works in question tend to contradict the Black feminist narrative of "overexposure."¹⁹⁰

It is possible to interrogate claims about post-apocalyptic narrative's portrayal of Blackness and Black women in a fashion similar to Nash. What we understand post-apocalyptic works to *do* with Blackness depends upon what we understand post-apocalyptic narrative to be *for*. *M Archive* and *Fast Color* are, I have argued, entries in a subgenre called end of the world dystopia, which concerns itself with futurities beyond the end of Man. Despite her concerns about the instrumentalization of Black women in dystopia, Jayna Brown concedes that Black characters often determine or directly communicate the crucial meaning of a work and can come to represent both "the demeaning critique and its terms of vindication."¹⁹¹ It may be possible that Blacks and Black women in particular play pivotal roles in these artifacts for reasons other than

¹⁸⁶ Nash, *The Black Body in Ecstasy* "Chapter 1: Archives of Pain"

¹⁸⁷ Nash, *ibid* "Chapter 1: Archives of Pain"

¹⁸⁸ Nash, *ibid*, "Introduction"

¹⁸⁹ Nash, *ibid*, "Introduction"

¹⁹⁰ Nash, *ibid* "Introduction"

¹⁹¹ Brown, "The Human Project", 122

their general instrumentalization and overdetermination in the culture. It may be that Blackness, being in Spiller's words "vestibular to culture" and mirroring for society "what a human being [is] *not*," is by simple logic the clearest access point to life outside the world of Man.¹⁹² Any project expressive of anxieties about or perversely attached to the end of Man will, by this logic, naturally converge on lives and identities definitionally situated outside the boundaries of the human. In post-apocalyptic narrative, without the *deus ex machina* moral reset of apocalypse, this convergence around Black protagonists common to the subgenre need not be read as an identitarian cooptation. Rather, and particularly when produced by Black artists, these works should be read as an abdication of the humanist project.

A close reading of Ruth's seizures, and her subsequent mastery of her symptoms, maps a progression from confinement and isolation in association with generational trauma to free movement and increasing agency in association with the natural world of nonhuman others. Ruth's seizures—themselves so evocative of racial trauma—take place in poorly-lit, interior spaces including a run-down hotel room and the barn on Bo's farm. When Ruth returns home, Bo offers to help her salve her raw wrists and ankles, and to help with her restraints. Later, Bo recounts holding Ruth down during childhood seizures. Bo's own practices of staying hidden and concealing her abilities have likewise been handed down by the generations of women in the family book she presents to Ruth. Aida Levy-Hussen has argued that contemporary narratives of slavery "dramatize African Americans' enduring attachments to an unresolved history of racial trauma that appears at once as a site of unresolved suffering and an object of reparative desire."¹⁹³ The scenes of autopornotroping in *Fast Color* dramatize these attachments by means

¹⁹² Spillers, "Interstices", p. 155

¹⁹³ Levy-Hussen, *How to Read African American Literature*, 2

of symbolically evocative *mise en scene*. And there is a parallel sense in which, for Ruth to heal, the entire paradigm of family and inheritance must change. Ruth and Lila must embrace their powers and abandon the legacy of confinement and concealment that is their family tradition. Likewise Bo's longstanding role in hiding, confining, and physically restraining her daughter must be abandoned for a willingness to show her own powers and fight alongside her daughter and granddaughter.

The family's orientation toward damage and suffering, according to the film, has a cost. Near the end of *Fast Color*, Ruth flees the encroaching research team but runs out of gas. As she walks to a gas station she begins to have memories of holding and playing with newborn Lila. At the gas pump, Ruth recalls Lila's anger at her departure hours before. Her hands begin to shake, signaling the onset of a seizure. There is no hope of laying supine and binding her limbs. Ruth runs into the scrub brush beyond the pumps, falling prone on the earth. A shot from above then shows Ruth with arms outstretched, one hand clutching at dead grass, the other the soil. No longer bound and confined, she is, in a sense, "grounded": fully exposed to the elements, connected with and surrounded by the nonhuman world. Ruth then remembers an incident, shortly after Lila's birth, in which one of her seizures caused a water pipe to break and Lila nearly drowned.



Ruth falls prone, controls her seizure

Levy-Hussen has identified a contemporary narrative temporality in African American literature that she calls “traumatic time,” which:

defies chronological mapping and instead takes shape through repeated, affectively charged references to an original traumatic event. Traumatic time is non-linear, dis-unified, and regenerated by the impossible desire for a redemptive return to the past.¹⁹⁴

Ruth’s seizures—an internally and externally jarring departure from cohesive, linear time in which she is visibly bound and confined—are instances of traumatic time. When Ruth departs from the practices of bondage and confinement which figure generational trauma, she gains control of her abilities. She also relives a memory which shows her how destructive this reiterative attachment to trauma has been. As Ruth recalls lifting her infant daughter from the floor of the flooded bedroom, a drop of rain falls on her hand. She raises her head from the dirt to see that storm clouds have gathered, and it begins to rain. Lila’s age matches the duration of the

¹⁹⁴ Levy-Hussen, *ibid*, 20

drought: having nearly lost her infant to drowning Ruth has, it seems, stopped the rain for eight years.

A parallel scene of worldmaking occurs in the final section of *M Archive*. A woman, possibly a survivor though gradually taking on the characteristics of a godhead or Gaia-like figure, is instructed to “*speak life*.”¹⁹⁵ The protagonist feels (perhaps like Moses) that she is not ready, but “at some point (call it the seventh day)” she concedes. The result, a fusion of her generational and embodied pain in combination with Earth’s elements, produces a new planet:

there was a world made of her screaming.
[...]
a planet formed out of the whirlwind, dirt holding itself together,
water streaming through, everything was attuned to the howl. it be-
came the most solid planet in her universe, that world made out of
the scream
[...]
there was a world made of her screaming. an ecosystem to support
it. the solid place we stand on. the calcified weight of her screams.¹⁹⁶

A habitable world, with “an ecosystem”: “the solid place we stand.” An entire world generated from the screams of a Black woman. The result of an act of finality, this new world is made, certainly, of historical pain. But it is itself whole, “the most solid planet in her universe,” not retraumatizing, not plagued by a desire for “redemptive return.” This passage is a very clear example of why the futurities offered by end of the world dystopias navigate complicated affective landscapes and are not, as some scholars of the posthuman would hope, ultimately utopian. The futures stemming from *M Archive* and *Fast Color* resemble—in their fluidity and unpredictability—utopian queer futurity as invoked by Muñoz but they abandon, rather than

¹⁹⁵ Gumbs, *M Archive*, p. 205

¹⁹⁶ Gumbs, *ibid*, p. 87

advancing or fulfilling, the humanist project.¹⁹⁷ The end of the human and the end of time might sometimes be features of utopia, but they are always features of end of the world dystopia.

“This is Only the Beginning”: In Conclusion

In this chapter, I have argued that works of end of the world dystopia foreground the Black posthuman not because of biases in contemporary culture and filmic convention but because in this subgenre Blackness’s position outside of the world of Man is a strategic advantage. Works which tell the story of the end of Man will naturally look to life at its margins. These same parameters complicate the place of enduring attachments to “unresolved suffering and [...] reparative desire” in end of the world dystopia because the pursuit of this repair is a reinvestment in the humanist project.¹⁹⁸ Works of end of the world dystopia often depict a collapse of global capital which de-liberalizes and re-materializes value into matter. Despite this emphasis on environmental degradation, value, and debt, they often disavow the prospect of comprehensive reparation, turning away from affective attachments to generational trauma in order to generate new futures associated with the Black posthuman.

In the penultimate scene of *Fast Color*, Bo and Ellis face off with an armed group of scientists and heavies. Ruth arrives, bringing gusts of wind and rain. The men point their handguns at Ruth, thinking her the most dangerous, but Bo intervenes. In a long shot that pans slowly across Ruth’s would-be captors, each gasps in turn as his handgun deforms into a shadowy wisp of matter. The door to Lila’s cell, too, drops into a pile of dark particulate at the base of the doorframe, and Lila walks free. Bo delivered her dystopian prognosis for the world of Man in the film’s opening shot. In this sequence—her own vision of the future perhaps enlivened

¹⁹⁷ Muñoz, *Cruising Utopia*.

¹⁹⁸ Levy-Hussen, *How to Read African American Literature*, 2

by Ruth's mastery of her seizures and her return for Lila—Bo augments this premonition with a fresh sense of her family's powers: "You're scared because the world is dying, and you don't know how to stop it. But I do. A new world is coming. This is only the beginning." Bo declaims to a confused, rain-soaked, newly disarmed group composed entirely of white men. The sequence is a powerful and poetic summation of the ways in which *M Archive* and *Fast Color* surrender the recuperative or utopian impulse to "fix what's broken" in exchange for the radically unknowable futures beyond the world of Man.

**“Nothing Monstrous Existed Here”: Horror at
End of the World**

The most merciful thing in the world, I think,
is the inability of the human mind to correlate
all its contents.

~ Francis Wayland Thurston, “The Call of Cthulhu”¹⁹⁹

the experience of horror [...] does not depend
on interpretation, whether allegorical or symbolic.
It does not convey meanings: *it is a state of being*.

~ Talal Asad²⁰⁰

In this form, in this body, I will never know

~ The biologist²⁰¹

Donna Haraway’s expansive vision, in *Staying with the Trouble*, that the epoch which follows the Anthropocene be characterized by “diverse earthwide tentacular powers and forces” is countermanded by her insistence that this epoch *not* be named after H.P. Lovecraft’s Cthulhu. Haraway’s disavowal of this one monster, which first appears in Lovecraft’s 1928 “Call of Cthulhu,” as a “misogynist racial-nightmare monster” is particularly notable given that Cthulhu is described by that story’s narrator as having “an octopus-like head whose face was a mass of feelers.” If any chthonic monster might be said to evince “tentacular powers and forces” it would be Cthulhu.²⁰² While the story’s narrator and some of its characters do express racist ideas and employ racist tropes, the story presents no evidence that Cthulhu is racist or misogynist. To the contrary, Cthulhu is a cult figurehead for an ethnically and racially diverse group of worshippers

¹⁹⁹ Lovecraft, *The Fiction*, 355

²⁰⁰ Asad, *On Suicide Bombing*, 81

²⁰¹ VanderMeer, *Acceptance*, 179

²⁰² Haraway, *Staying with the Trouble*, 101; Lovecraft, *The Fiction*, 362

ranging China to Greenland to the West Indies, members of which appear to have brought about the death of the narrator's great uncle and will, the narrator suspects, ultimately kill him as well. The overtly racist ideas and tropes in the "The Call of Cthulhu" are, I would argue, consistent with a white male narrator whose investments in the exclusionary construction of the human and whose inability to see beyond the world of Man can only result in horror at the prospect of its end. Whether the narrator's concerns are expressive of racist views held by Lovecraft himself has no bearing on Cthulhu's utility in explicating the links between horror, the nonhuman, and the end of Man.

This project advances a three-part argument which includes: first, a high-level assertion that nonhumans and the alterity of nonhuman existence present a pathway to new and necessary kinds of futures beyond the Anthropocene; second, an argument for the utility of the posthuman (emphasizing the literally nonhuman) in discourses addressed to queer theory and Black studies; and third, the definition of a unique genre of post-apocalyptic narrative, called end of the world dystopia, which imagines and often celebrates what comes after the end of Man. This chapter is primarily focused on the first part of this argument. It reads Colson Whitehead's *Zone One* and Jeff Vandermeer's *Southern Reach Trilogy* for examples of nonhuman alterity as a conduit to worlds beyond the end of Man. It also makes clear how these two end of the world dystopias link anthropogenic climate change and the horror of large-scale monstrosities. Finally, this chapter returns to enstrangement as a rite of passage to participation in those future worlds, theorizing the links between horror and enstrangement.

Like many humanities scholars engaged with the end of the Anthropocene, Donna Haraway is hard-pressed, in *Staying with the Trouble* and elsewhere, to tell a happy story about the end of the world. I believe this is not so much an affectation unique to Haraway as a

difficulty in liberal humanist discourse arising from the fact that, in such discourse, claims are prefaced on the continuation of the discourse—which ultimately depends on the continuation of liberal humanism. Despite the fact that we are supposed to be both terrified and morally outraged at the consequences of climate change, it is disruptive—both psychically and professionally—to concede that it likely means the end of Man—that it will be not only transformative but probably painful, ego-destorying, horrific. There is much to love in Haraway’s descriptions of a budding “Chthulucene.” And her engagement is important because, as I mention in Chapter 2, it links a sense of reiterative or spiraling time described by queer and Black studies theorists including José Esteban Muñoz, Carolyn Dinshaw, and Aida Levy-Hussen with posthuman futurity. But I question Haraway’s dismissal of Cthulhu, and will return to Lovecraft’s story to offer alternatives to her designation of the monster itself as a “misogynist racial-nightmare monster.”

“The Call of Cthulhu,” which imagines the end of Man, presages the contemporary subgenre of post-apocalyptic narrative which I am calling end of the world dystopia. This subgenre comes into its own at the end of the twentieth century, concurrent with increasing social knowledge of and anxieties about environmental degradation and anthropogenic climate change. End of the world dystopias are unique among post-apocalyptic narratives in that they look forward, in one way or another, to the end of the world. They depict uninheritable worlds, worlds degraded to the point of being unsurvivable sometimes to the point where no humans remain. Works of end of the world dystopia share several other important features: they offer condemnations of the world of Man; they feature survivors in othered (queer, crip, or nonwhite) states; they tell horrific stories of survival; they foreground states of phenomenological disorientation or dehumanization, what I call “enstrangement;” and they utilize nonhuman agents in order to generate new posthuman futures.

While social norms for how we talk and think about race have changed, and the kind of scientific racism articulated in “The Call of Cthulhu” is no longer acceptable, the end of the human precipitates the same crisis for humanism today as it did in 1928. That is why contemporary works of end of the world dystopia like *Zone One* and *Southern Reach Trilogy* have so much in common, both in plot and characterization, with “The Call of Cthulhu”—because it is still horrific, especially to those of us deeply identified with exclusionary definitions of Man, when nonhumans assert their agency. Our solipsistic way of thinking about our place in the world is—for better or worse—not sufficient to our moment in either human history or geological time. And turning away, in the *name of* the end of Man, from the horror therein to offer a happy alternative story which advances short-term humanitarian goals is, in my opinion, a perverse reinvestment in the humanist project that has nothing whatsoever to do with the actual end we face.

In this chapter I locate in *Zone One* and *Southern Reach Trilogy* an alternative vision of what comes after the Anthropocene: a humble, measured embrace of enstrangement and annihilation. These horrific works which look forward to the end of Man offer both great pleasure and much instruction in how to mourn and live the end of the world. I first revisit “The Call of Cthulhu,” offering a more detailed reading of the text and locating in the protagonist an affectation I call “gestural whiteness.” I then turn to Whitehead’s *Zone One* to explore the zombie apocalypse genre and apply my concept of enstrangement and further elaborate the figure of the estranged. I refer to Robin Wood for zombie film history and horror film taxonomy. And I refer to Talal Asad to show how horror is linked to enstrangement. Finally, I conduct significant characterological analysis of Mark Spitz and several characters in *Annihilation*, *Authority*, and *Acceptance* to further my points about the estranged and their

passage into futures beyond the world of Man. Ultimately, the autopoietic system that is Area X and the characters who engage with it have much to teach us about embracing the worlds and futures upon which protagonists such as Lovecraft's Thurston dare not look.

“But I must not and cannot think!”: Reframing White Horror at the End of the World

H.P. Lovecraft's "Call of Cthulhu" is a three-part, first-person account of Francis Wayland Thurston's investigation of a Cthulhu cult documented in the records of his deceased great uncle, Professor George Angell. Angell's possessions include a clay bas-relief of Cthulhu, "[a] pulpy, tentacled head surmount[ing] a grotesque and scaly body with rudimentary wings," as well as three written accounts. The first account documents the dreams and artistic works of a local artist, H.A. Wilcox, during the month of March 1925.²⁰³ The artist produced the clay bas-relief and other works, experiencing an escalating delirium of elaborate dreams, only to wake with no memory of them on April 2. Angell found that during this period "artists and poets" across the globe had dreamed of a city of obscure architectural provenance and a monster called "Cthulhu" or "R'lyeh," with some such individuals driven to insanity or suicide. Professor Angell recognized the monster in Wilcox's bas-relief from a 1908 account by a New Orleans police inspector Legrasse, who encountered a statuette of the same monstrous figure obtained during a raid of a gathering of Black and mixed-race sailors in the swamps south of New Orleans. Legrasse described a disorganized ritual of dancing, chanting, and human sacrifice. One of the captured cult members had mentioned "undying leaders" of the cult in "Old China," and told of "star-born Old Ones" waiting in a submerged city which would rise again. At the gathering of the American Anthropological Society where Legrasse presented the statuette, it was recognized by a Professor Channing Webb of Princeton, who had encountered the same figure, rituals, and

²⁰³ Lovecraft, *The Fiction*, 357

chanted phrases in an Inuit community in Greenland.²⁰⁴ Thurston begins to suspect that Angell's death was not an accident. He interviews Wilcox and is convinced of his innocence of any plan to leverage a preexisting knowledge of the Cthulhu cult. He then learns of strange maritime events in the South Pacific during the same range of dates, and travels to New Zealand and then to Oslo to interview the lone survivor, one Gustaf Johansen, second mate of the schooner *Emma*. But by the time he arrives Johansen, too, has suffered a strange death near the Gothenburg docks. After reading Johansen's account, Thurston concludes that Cthulhu was again entombed when R'lyeh sank on April 2, "or the world would by now be screaming with fright and frenzy." He suspects that he, too, will be killed because of what he knows, and urges others not to take up his research. Cthulhu, Thurston believes, will rise again: "What has risen may sink, and what has sunk may rise. Loathsomeness waits and dreams in the deep, and decay spreads over the tottering cities of men. A time will come—but I must not and cannot think!"²⁰⁵

Haraway's assumption that there is nothing to be learned from "Cthulhu," and no pleasure to be taken from it but racist pleasure, seems to assume that a reader must embrace the race and perspectives of her narrator—and that any reader would by necessity possess, if her narrator possessed it, an identificatory or philosophical attachment to white supremacy. But there is so much beauty to be found in this story's vivid, rhythmic, Yeatsian prose, its careful pacing, and its crippling sense of foreboding at the prospect of that "rough beast," the incomprehensible nonhuman Other. The narrative's epiphany is enhanced by the skeptical and methodological scientific inquiry employed by the narrator, Angell, and Penn, which alludes to the expansionist scientific positivism of the Victorian Era and foregrounds the ideological and rhetorical link

²⁰⁴ Lovecraft, *ibid*, 366

²⁰⁵ Lovecraft, *ibid*, 379

between scientific racism and the exclusionary definition of Man. This methodical inquiry lends even more gravity to the passages where Thorton lapses into livid, horrified prophecy. In addition to these pleasures to be had from “Cthulhu,” there are others which have little to do with its muscular prose and meticulous pacing. I am surely not the only reader, for example, who derives an admittedly sadistic pleasure when Thorton turns away in horror and panic with “but I must not and cannot think!” There is something very satisfyingly anti-establishment in seeing a white man wholly assured of his own high place and comprehensive knowledge terrified nearly out of his mind. I might be wrong, but I suspect this is a pleasure not at all anticipated by Lovecraft himself.

White men are, consistently, the characters who turn in horror from Cthulhu: Angell, Legrasse, Penn, Gustaf Johansen (who returns from R’lyeh with his blond hair turned white), and finally Thorton himself. The story certainly conveys the casual racism of these characters. The cult members Legrasse captures in the Louisiana swamp, in particular, are ascribed animalistic characteristics, described as “hybrid spawn [...] void of clothing” who move with “animal fury and orgiastic license.”²⁰⁶ Their subsequent characterization as “men of a very low, mixed-blooded, and mentally aberrant type” evokes the influence of phrenology and evolutionary theory on early criminology.²⁰⁷ Penn likewise describes the Inuit cult as “degenerate” and “diabolist.”²⁰⁸ The *Sydney Bulletin* recounts the crew of the *Alert* as “half-castes.”²⁰⁹ In my opinion, the racism of these characters—which is not anachronistic to the early twentieth century—is less important than their *insistence* on racism. A creeping, incomprehensible

²⁰⁶ Lovecraft, *ibid*, 365

²⁰⁷ Lovecraft, *ibid*, 366

²⁰⁸ Lovecraft, *ibid*, 363

²⁰⁹ Lovecraft, *ibid*, 373

otherness lurks, it seems, even in Wilcox, the “sensitive” artistic son of an affluent white Providence family, who is described as a “thin, *dark* young man” (emphasis mine).²¹⁰ The reach of his racist assignations makes it possible to read Thorton as a kind of unreliable narrator, blindly rationalist, driven to dread and insanity by his resistance to the incomprehensible nonhuman. Offensive, certainly, but also instructive: Thorton is an educated, empiricist social Darwinist inclined to scientific racism—a neat encapsulation of the exclusionary definition of the human as manifest in the Western science and rhetoric of the late nineteenth and early twentieth centuries. His racism comes from the same place as his horror: investments in whiteness and the construction of Man. Horror is an implicit part of most works that examine the end of Man from a humanist perspective, and the racism in “The Call of Cthulhu” is simply another aspect of the narrator’s investment in that world.

In the subsequent sections, I offer readings of *Zone One* and *Southern Reach Trilogy*, paying particular attention to the horrific aspects of these contemporary works, and arguing that the proliferation of nonwhite protagonists signals not only a change in the politics of race but also the unique subject position necessitated end of the world dystopia. I first read *Zone One*, explicating the novel’s deployment of reproductive futurism, the racial politics at play in its allusions to gentrification, and the protagonist’s sense of having become “more me.” I then turn to *Southern Reach Trilogy* to explore the work of otherness and whiteness in the novels, locating several instances of enstrangement and considering what the overpowering natural beauty of Area X means for our own present and future.

²¹⁰ Lovecraft, *ibid*, 357

“I Leave Behind Me Parchment”: An Abbreviated History of Zombie Apocalypse and its Connections to End of the World Dystopia

Zombie apocalypse is unique among apocalyptic and post-apocalyptic narrative types in originating not in prose or poetry but in film. It has its predecessors in Haitian zombie mythology and a subset of mad scientist narratives focused on the raising or reanimating of the dead. And there is an additional related literary tradition, in the form of plague narratives, running back as far as the fourteenth century. One of the phenomena most associated with plague, claims Jennifer Cooke, is extremely high “social tensions and crises.”²¹¹ Zombie apocalypse, just like the plague narrative before it, creates both a space and container for exploring the breakdown of social systems and norms.

Zombie apocalypse, as it developed, transposed these longstanding themes of social breakdown into film, and many of the predominant themes and tropes in contemporary zombie apocalypse narratives can be accurately said to have originated as recently as the second half of the twentieth century, in Romero’s *Night of the Living Dead* (1968) and its sequel *Dawn of the Dead* (1978). The conventions Romero established for zombie apocalypse include the Black man as sole or sole male survivor. This trope appears sparingly in works preceding Romero’s films, though perhaps first in W.E.B. Du Bois’s 1920 short story “the Comet.” But zombie apocalypse is perhaps the first place this trope becomes firmly entrenched. Versions of the trope increasingly appear elsewhere in post-apocalyptic narrative and particularly in end of the world dystopia. Another trope originating with Romero is the shopping mall as both the site of zombie incursion and the nexus of survival. For fifty years, the protagonists of zombie films have holed up in, fortified, defended, and fled from malls.

²¹¹ Cooke, *Legacies of Plague in Literature, Theory and Film*, 11; Having lived through the Covid-19 pandemic of the last three years, most of us will have seen these “social tensions and crises” first-hand.

Robin Wood advanced a theory that certain spaces in American popular culture expressed the collective unconscious:

Two elementary Freudian theses: in a civilization founded on monogamy and the family, there will be an immense, hence very dangerous, surplus of sexual energy that will have to be repressed; what is repressed must always struggle to return, in however disguised and distorted form. Where should one look, in our culture, for this inevitable return to manifest itself? [...] its tendency to erupt within contexts we don't take seriously, despise, laugh at, where it can evade out scrutiny. Dreams, nightmares, and the "Freudian slip" [...] It is also rewarding to look at popular culture, especially those areas of it we feign most to despise [...] above all, the horror film.²¹²

The American horror film, that is, served a critical function as a site where a society's "collective nightmares" were expressed, and the evolution of the genre thus tracked the evolution of these nightmares across the decades. I believe this is equally true for apocalyptic and post-apocalyptic narrative, and particularly true for end of the world dystopia, which often portrays or gives expression to horror.

There are, in my opinion, some problems with applying Wood's largely Freudian theory of horror film unrevised to early twenty-first century artifacts. This theory was first articulated by Wood in the 1970s and it is based on a Freudian understanding of Western civilization that originates in the mid-nineteenth century. As I explained in Chapter 1, Wood established a dichotomy based on the film's relationship to repressed energies. "Reactionary" films reaffirm traditional values, protecting and restoring nuclear families and reinforcing traditional gender roles. "Apocalyptic" films, on the other hand, present the nuclear family or traditional gender roles as the *source* of horror, and often threaten and destroy figures of family or traditional gender roles.

²¹² Wood, Grant, and Lippe, *Robin Wood on the Horror Film*, 57

Wood's theory of the American horror film is now almost 60 years old, and Freud's understanding of repression was based on a society in which more—far more—was repressed. There is very little that is still really, truly repressed in the way sexual energies and desires were repressed in the 1850s. My explanation for this would be that as consumer capitalism liberalizes goods, information, and people, repressed energies are also liberalized—so that they can be monetized. There is certainly a substantial legacy of systemic racism in this country which has rightly taken a high profile in public discourse. And there places where one can still find examples of discrimination with regard to sexuality, gender identity, and biological sex. However, in most populated parts of the United States most forms of sexual expression that are consensual are commonly accepted if not approved of under the blanket moniker of “sex positivity.” It is commonplace for individuals to identify as trans, gendequeer, and genderfluid and both informal speech and written language are being changed to accommodate these individuals' feelings about their gender. It is also now rather commonplace for young heterosexuals to have had some experience with the kink community. Gays and lesbians are often considered old-fashioned or insufficiently fluid. I have personally been called “binary” as a slur, the suggestion being that I too successfully conform—as a butch lesbian—to the gender binary. Certainly we can no longer—even in comparison with the 1970s and especially in comparison with the nineteenth century—be in any way considered to resemble the liberal but socially repressive society in which Sigmund Freud first articulated these ideas.

Wood himself seems to have run into this complication when attempting to categorize the zombies of American horror films. He found that as a prototypical monster, zombies only partially met the tenets of a monster as “return of the repressed.” They lacked the energy and positive connotations of monsters of this sort—the members of the murderous family in *Texas*

Chainsaw Massacre are a clear example of this energy and savage possibility. Zombies also carried remarkably few negative connotations—often complicatedly so in the all-too-frequent instances where living characters encounter their own friends and family members among the dead. Whereas the zombies in *Night of the Living Dead* represented a disruption of the social order, with the armed posse restoring the social order the following morning by shooting the Black survivor, the zombies in *Dawn of the Dead* did not result from an anomalous radioactive technological trigger. Instead, they are “a ‘given’ from the outset,” gathering and feeding through the daylight. They are not an apocalyptic disruption that can be undone, but a new, persistent, post-apocalyptic world (perhaps one of “snaky ongoingness”).

Faced with this nuance, Wood argued that zombies, from *Dawn of the Dead* onward, represented “the whole dead weight of patriarchal consumer capitalism [...] mindlessly joining the conditioned gravitation to the shopping mall.”²¹³ *Dawn* was also, according to Wood, the first horror film in its era that neither restored the traditional order nor ended with an expression of despair. The film “is perhaps the first horror film to suggest—albeit very tentatively—the possibility of moving beyond apocalypse. It brings its two surviving protagonists to the point where the world of creating the norms for a new social order, a new structure of relationships, can begin”—a trope which, again, persists in zombie apocalypse to this day.²¹⁴ Zombie apocalypse may be, that is, one genesis point among many for post-apocalyptic narrative and its subgenre—end of the world dystopia. In the subsequent section I read Colson Whitehead’s zombie apocalypse novel *Zone One* (2011) as an example of end of the world dystopia. This novel that depicts zombie apocalypse in a sense works backwards through the history of

²¹³ Wood, Grant, and Lippe, *ibid*, 167

²¹⁴ Wood, Grant, and Lippe, *ibid*, 169

entertainment media, alluding to scenes from preceding films and deploying flash-forwards and flashbacks much like a horror film, while at the same time landing its hardest punches using techniques which are only possible in prose. The figuration of the zombie, I also argue, has changed again since Robin Wood's analyses: the zombie horde still represents the relentless onslaught of global capital and our guileless participation in that onslaught, but it also evokes the impending, unstoppable, and in some senses incomprehensible threat of anthropogenic climate change.

The Tromhauser Triplets as “Localized Hope”: End of the World Dystopia’s Myriad Alternatives to Reproductive Futurity

Ms. Macy is the event planner sent to beautify the “cleared” streets of Zone One—name of the Chinatown location of American Phoenix’s resettlement in former Manhattan. Those familiar with zombie apocalypse know that when Ms. Macy mentions to a group of “pheenies” that Babbling Brook, the settlement housing the Tromhauser triplets, has been lost, there can be little doubt that Zone One itself will also fall. “To pheemies,” Spitz has observed, “these babies were localized hope, and [his teammates] needed the triplets to pull through.”²¹⁵ Spitz has, throughout the novel, remained skeptical of many things, including: American Phoenix’s egalitarian narrative about who will inhabit the highrise apartments after they are cleared of lingering undead; Ms. Macy’s transparent efforts to gentrify neighborhood hotel lobbies and mom-and-pop restaurants still familiar from his past; and, his companions’ hope in the malnourished triplets’ survival. This reluctance or inability to reinvest in the structures and projects of the world of Man is what ultimately marks Spitz for survival.

²¹⁵ Whitehead, *Zone One*, 52

Zone One is the story of Spitz's flight from "Last Night" in his parents' home on Long Island through a series of settlements, solitary hangouts, and even a farmhouse which faintly alludes to the set of Romero's *Night of the Living Dead*. Over the course of the novel, Spitz also slowly relinquishes his shame at the mediocrity of his pre-apocalyptic past. Rescued from the farmhouse and delivered to Zone One, he serves on a civilian "disposal" team clearing office and apartment buildings of "stragglers" which, as opposed to the ravenous and fast-moving "skels," return to familiar haunts to dreamily pantomime habitual postures or actions they performed in life. Only at the very ending of the book, the day the stragglers "wake up," during his conversation with a bitten, dying comrade, does the reader learn that the protagonist is Black. Mark Spitz, the name of a white competitive swimmer and Olympic gold medalist, was sarcastically assigned to him when he refused, in a prior assignment on I-95, to leap from a bridge to safety and his teammates realized that he could not swim.

Congruent with Spitz's skepticism of babies and futures, the parents of *Zone One* are deadly dangerous:

Parenthood made grown-ups unpredictable. They hesitated at the key moment out of consideration for their kid's abilities or safety, they were paranoid he wanted to rape or eat their offspring, they slowed him down with their baby steps [...] The parents were dangerous because they didn't want your precious supplies. They possessed the valuables, and it hobbled their reasoning.²¹⁶

The soccer moms and joking dads of *Zone One*, suburban heroes of the past (a word frequently mistaken, in the novel, for "PASD," the acronym for "post-apocalyptic stress disorder" now afflicting the remaining humans), are liabilities to be ditched or avoided. It's a deft inversion of the figural child which, Lee Edelman argued in *No Future*, "has come to embody for us the telos

²¹⁶ Whitehead, *ibid*, 140

of the social order [...] the perpetual horizon of every acknowledged politics, the fantasmatic beneficiary of every political intervention.”²¹⁷

Apocalyptic narratives are some of the best artifacts for examining reproductive futurity and the role of the figural child; Edelman references *Children of Men* in his own exposition. But there is a difference, which I have explored in a previous chapter, between apocalyptic narratives, which typically conclude with a *deux-ex-machina* reset which restores the world of Man, and end of the world dystopia, which resists this reinvestment in humanism. Edelman introduces the concept of the *sinthomosexual*, culture’s scapegoated white male homosexual (Ebenezer Scrooge, for example) who embodies the world of Man yet repudiates reproductive futurity.²¹⁸ But Edelman does not acknowledge or situate characters like Spitz who survive *because of* their otherness, their proximity to Agamben’s *zoe*-, their definitional exclusion from the human.

Edelman seems to believe, in *No Future*, that reproductive futurity is the only kind of futurity. I suspect that he endorses queer negativity so emphatically precisely because he does not wish to see beyond the humanist project. End of the world dystopia does precisely this. Whereas the *sinthomosexual*—usually some type of pro-cultural but anti-reproductive aesthete—figures culture/Man without futurity/life, the survivors of end of the world dystopia figure futurity/life without culture/Man. The *sinthomosexual*, while threatening to the imperatives of reproductive futurity, is also fixed in a backwards-looking gaze, admiring aspects of the world of Man but abjuring the call to carry culture forward into the future. End of the world dystopias hinge, by contrast, on the enstranged, characters who offer or access alternative futures by

²¹⁷ Edelman, *No Future*, 3, 9

²¹⁸ Edelman, *ibid*, 33-50

engaging with nonhuman agents. This is why queer negativity arises, in end of the world dystopia, when the narratives *turn away* from the nonhuman and the potential of the enstranged is foreclosed. I articulate this dichotomy in Chapter 1: Lilith Iyapo and other humans who mate, in Octavia Butler's *Xenogenesis*, with ooloi achieve some degree of reproductive futurity, but at the grave cost of joining nonhuman families and bearing nonhuman children; *Alien Resurrection*, by contrast, turns away from xenomorph hybridity to reinvest in the humanist project. The result is two crip gay couples, Call with Ripley 8 and Vriess with Johner, stranded on a desecrated Earth: on an uninhabitable world, the turn back to humanity means the resurrection of queer negativity.

Despite working to clear the neighborhoods of Zone One, Spitz remains mentally aloof from the resettlement project. The military's reclamation of dumpling and dim sum restaurants reminds him a bit too much of gentrification. He observes the Lieutenant's optimism that "the city would be restored" with aplomb.²¹⁹ When Ms. Macy confesses, as the walls of Zone One begin to fail, that her assignment, "is PR [...] It'll be years before we're able to resettle the island. We don't even have food for the winter," Spitz takes it in stride.²²⁰ His internal monologue has maintained a strict neutrality about everything except his immediate safety and his next meal. He questions Buffalo's efforts "to transport the old ways across the violent passage of the calamity to the safety of the other side," knowing full well from his time working in and living outside of the city that Manhattan has always been "a gorgeous, intricate delusion," the edifice, beacon, and beating heart of global capital which—with great resonance for Robin

²¹⁹ Whitehead, *Zone One*, 34-5, 128

²²⁰ Whitehead, *ibid*, 311

Wood's analyses—spoke the same words as the zombie horde: “I will eat you up.”²²¹ In internal monologues, he frames his perspective as a difference in genre (alluding, in some sense, to the conventions of post-apocalyptic narrative and its difference from apocalyptic narrative): “the real movie started after the first one, in the impossible return to things before.”²²²

This internal monologue, which conducts a self-conscious analysis of the character's own narrative trajectory, is possible only because *Zone One* is a novel and not a film. Likewise, the ingenious reveal of the conclusion, such that the reader does not learn that Spitz is Black until the last pages of the novel. That remembered incident, in which Spitz single-handedly put down a large column of approaching “skels,” was also when Spitz first embraced his longstanding mediocrity and the immortality it seems to afford:

He had his suspicions, and every day in this wasteland supplied more evidence: He could not die. This was his world now, in all its sublime crumminess [...] He was a mediocre man. [...] Now the world was mediocre, rendering him perfect. He asked himself: How can I die? I was always like this. Now I am more me.²²³

The dying teammate claims (falsely, Spitz suspects) not to have known about the urban myth that Black people cannot swim, and Spitz puns that he “can tread water perfectly.”²²⁴ But the protagonist's own statements about his ability to swim vary from page to page and meld in confusing ways with his relationship to the undead. Spitz's early account of the bridge maintains both that “he could not swim” and that “he knew a few strokes.” Spitz later reflects, about his reluctance to live in Manhattan after college, that he had been scared of the city, that “[h]e knew

²²¹ Whitehead, *ibid*, 7, 59, 304

²²² Whitehead, *ibid*, 166

²²³ Whitehead, *ibid*, 182-83

²²⁴ Whitehead, *ibid*, 287

how to dog-paddle and that was it.”²²⁵ Passages like these suggest that swimming holds more of a metaphorical than literal place in the novel as a whole, and even that Spitz may have joked—or lied—to his teammates after the bridge incident. Spitz is, in fact, never described at all in the first-person omniscient narration. The only stereotypically Black thing about him, his inability to swim, is itself a cultural construction both elevated to the level of metaphor and repeatedly muddled and undercut by Spitz himself in the retelling. The ultimate effect is to emphasize both the constructed nature of race itself and the protagonists’s difficulty in assigning racial identity a single, coherent place in his own narrative. The many things he jettisoned on First Night include a highly codified and stereotypical cultural Blackness. The characteristic that affords Spitz his ability to exceed the world of Man, that is, may be less a pervasive sense of otherness than a difficulty in or reluctance—using the constructions and frameworks afforded him—to locate or delimit the self.

The connection between Spitz’s self-avowed mediocrity and his ability to swim coalesce as the distinction between the gentrifying “resettling” humans of American Phoenix and the zombie horde slowly erodes. The Lieutenant in charge of Fort Wonton has maintained the importance of never anthropomorphizing the “stragglers” and “skels”: “The whole thing breaks down unless you are fundamentally sure you are not them.”²²⁶ But the novel’s imagery depicts the zombie apocalypse as a manmade phenomenon, linking the horde that besieges Fort Wonton with anthropogenic climate change: “The ocean had overtaken the streets, as if the news programs’ global warming simulations had finally come to pass and the computer-generated

²²⁵ Whitehead, *ibid*, 162

²²⁶ Whitehead, *ibid*, 195

swells mounted to drown the great metropolis. Except it was not water that flooded the grid but the dead.”²²⁷

Ravenously acquisitive, streaming through the streets of Chinatown like soccer moms at a Black Friday toy store, contending for the same square footage so presumptuously marked, by American Phoenix, for “reclamation,” the hordes are at once inhuman and too-human. “It was the business of the plague,” Spitz reflects, “to reveal our family members, friends, and neighbors as the creatures they had always been.”²²⁸ When the Lieutenant suicides by cramming a grenade in his mouth, manifesting his own quixotic version of “consumer capitalism,” it is perhaps because he can no longer maintain, with any certainty, the distinction between “us” and “them.” Little wonder that Manhattan, avatar of human striving, assailed by a flood of undead of “every race, color, and creed,” becomes the symbolic stronghold from which a once again solo Spitz finally flees.²²⁹ What Spitz calls “mediocrity,” the trait that separates him from both the “pheenies” and the horde, is his lack of striving: his ambivalent attachment to the ideologies and artifacts of Man.

That part of the pleasure of end of the world dystopia derives from believing in your own skills and utility as a survivor makes the novel’s last-minute reveal particularly clever. Other end of the world dystopias feature queer, crip, and nonwhite protagonists; this one offers the reader an everyman and then, in the final scenes, meaningfully narrows his identity. It is a clever manipulation of the expectations of the subgenre. Many readers who have inadvertently

²²⁷ Whitehead, *ibid*, 302

²²⁸ Whitehead, *ibid*, 245

²²⁹ Whitehead, *ibid*, 303

identified with Spitz will find their own presumptive status as survivor called into question—will find themselves suddenly categorically excluded and instead part of the all-too-human horde.

Spitz is not *sinthomosexual*, not queer negativity, not culture without children but instead a complete turning away from the human. His final gesture is not the heroism of the human world, but an embrace of enstrangement and *jouissance* which recurs in other horrific works of end of the world dystopia. *Annihilation*'s Biologist, too, will find that "the brightness" she contracts makes her "more herself." The Biologist, too, will ultimately give herself over to the vast, incomprehensible, nonhuman force which inhabits and alters Area X. The "calamity" of *Zone One* is not in fact different from Cthulhu's rise: a burgeoning, horrific entity that effects the end of Man. This end of the world dystopia does its work not with new kinds of endings, but from a simple shift in subject position. Spitz is the protagonist so common to the subgenre, capable of thinking what Thorston "must not and cannot think." He survives because he sees the human world for what it is, sees its boundaries and limitations, and can therefore look beyond. Stranded and abandoned in the island city that scared him even before the devastation of "Last Night," Spitz steps into streets streaming with "skels" to effect his own flight from the island. "Fuck it, he thought," giving himself over, finally, to the city, the flood, "You have to learn to swim sometime. He opened the door and walked into the sea of the dead."²³⁰

If in *Zone One* the zombie horde are compared to anthropogenic climate change, Jeff VanderMeer's Area X is very difficult to distinguish from it. The subsequent section examines Jeff VanderMeer's *Southern Reach Trilogy* as an end of the world dystopia, conducting characterological analyses of the survivors the trilogy portrays, analyzing the role of whiteness in

²³⁰ Whitehead, *ibid*, 322

the articulation and figuration of horror, and suggesting that Gloria, Control, Ghost Bird, and the biologist have much to teach us about the end of Man.

“Yet Still the Blue Heron”: Horror and Acceptance at the End of the World

So they walked forward, throwing pebbles
as they went, throwing pebbles to find the
invisible outline of a border that might
not exist any more.

They walked for a long time,
throwing pebbles in the air.²³¹

The above passage is from one of the final chapters of *Acceptance*, the third novel in Jeff VanderMeer’s 2014 *Southern Reach Trilogy*. It describes Grace Stevenson, former assistant directory of the Southern Reach facility, and Ghost Bird, Area X’s cloned but self-actualized genetic copy of the biologist from Southern Reach’s “twelfth expedition,” walking toward the border of Area X. Interim director John Rodriguez, also known as Control, has thrown himself into the shining spiral plant at the base of the tunnel described by most expeditions as “the tower,” and Ghost Bird perceives that, in response, Area X has changed. Having counseled Grace not to be afraid, that “[t]here was nothing to warn anyone about. The world went on, even as it fell apart, changed irrevocably,” this unlikely pair walk—crossing the former boundary of Area X, passing the abandoned checkpoints—toward what remains of Earth, if Earth remains.²³²

“What if there is no world out there,” Grace asks, and Ghost Bird takes her hand and comforts her. She held Control, too, through his feverish struggle with “the brightness” as the trio traversed Area X on their way to the tower. Despite the cognitive and affective emptiness of the copies which preceded her, this doppelgänger of a woman so detached from humanity that

²³¹ VanderMeer, *Acceptance*, 331

²³² VanderMeer, *ibid*, 328

she reminded the former director of Area X itself, Ghost Bird has shown herself to be notably capable both of detached inquiry and human touch. In an attempt to discern the border as they walk toward and through a world where “the hegemony of what [is] real [has] been changed forever,” the gay Black woman and the genetic and intellectual clone produced by a vast, autopoietic AI which operates by incorporating and changing Earth lifeforms throw pebbles like children.²³³ The pair bears all the common markers of end of the world dystopian survivors and is a near mirror image or twenty-first century update of Ripley 8 and Call at the end of *Alien Resurrection*. The pebble-throwing duo also somewhat confounds Edelman’s queer negativity, however, by figuring *both* the estranged survivor and the figural child. This section examines Jeff VanderMeer’s *Southern Reach Trilogy* as an end of the world dystopia, conducting characterological analyses of the survivors the trilogy portrays, theorizing a gestural whiteness in the articulation and figuration of horror, and positing some things that Control, Ghost Bird, and the biologist have much to teach us about how to live the end of Man.

Jeff VanderMeer’s *Southern Reach Trilogy*, published in 2014 and composed of *Annihilation*, *Authority*, and *Acceptance*, tells the story of Area X, a geographical anomaly encompassing several hundred acres of west Florida coastline. The anomaly extends suddenly from a coastal origin point, engulfing several towns and a military installation, and exhibiting an invisible but impenetrable border through which it produces a single, shimmering entrance. A government agency referred to as Central establishes the Southern Reach facility near its border. From this facility, over the course of 38 years, experiments and expeditions are launched to investigate. Initial expeditions go badly, triggering disorientation, schizophasia, violence, and physiological alterations in expedition members. Scientific equipment is observed to decay at

²³³ VanderMeer, *ibid*, 329

alarming rates. Subsequent expeditions employ various counter-strategies, including hypnosis, naming expedition members only by their expertise or role, and the provision of simple, antiquated equipment including scientific field notebooks. The numbers of expeditions are intentionally repeated to reduce the impression of failures. What's worse: the border of Area X appears, to many at Southern Reach, to be advancing. When individuals from the last eleventh expedition are found in various locations outside Area X, able to report very little and dying of accelerated, systemic cancers, it is suspected that they are genetic and intellectual copies of the original expedition members. The Director (a woman who, unbeknownst to most of her colleagues, spent much of her childhood living near the subsequent origin point of by the anomaly) discovers that she is dying of cancer and decides to lead the twelfth expedition herself. She brings a secret weapon: the wife of one of the members of the eleventh expedition, a research biologist whose cold objectivity and persistent self-isolation suggest an entity as inviolable and inhuman as Area X itself.²³⁴

Annihilation, narrated by the biologist, is the story of her conditioning for and participation in the twelfth expedition. Soon after crossing the border, the team enters a tunnel and finds that the outer wall contains organic growths which form words. While collecting a sample of the writing, the biologist inhales sporelike particles which form a growing "brightness" inside her body, making her impervious to hypnosis. At the psychologist's prodding, the anthropologist returns to the tunnel and confronts the "Crawler" as it writes on the wall. It kills the anthropologist and injures the psychologist. The biologist then follows the missing psychologist to the lighthouse, concluding from the towering pile of notebooks in a secret room under its upper floor that the expedition members had been lied to about the number

²³⁴ VanderMeer, *Annihilation*, 274, "You are reminded of Area X somehow. The biologist reminds you of being inside Area X." VanderMeer, *Acceptance*, 4, "Your defiant weapon, hurled against the walls of Area X"

of expeditions and the true nature of Area X.²³⁵ The biologist finds and reads her husband's notebook, which is addressed to her by her pet name, Ghost Bird. Exiting, she finds the psychologist on the sand, infected, crazed, and fatally injured from having leaped from the lighthouse. The biologist returns to the tower and descends to find the Crawler. The creature engages her in a probing, parsing manner that leaves her battered and disoriented. Concluding that the anomaly was triggered by some unknown, external perturbation and that its machinations are far too complex and nuanced to be comprehended in any human fashion, the biologist abandons the expedition, heading north up the coastline in search of an island mentioned in her husband's journal.

Authority tells the story of Southern Reach after the failure of the twelfth expedition and loss of its director. John Rodriguez, descended from two generations of successful clandestine agents, is a career fixer sent from Central to diagnose and remedy the organization's dysfunction. Control confers with the facility staff, including the assistant director Grace, and digests a great deal of the facility's documents and the few video records. He also interviews the biologist's double, now held captive at Southern Reach. The captive refers to herself as "Ghost Bird" and insists she is not the biologist. Soon after, the director's double walks into Southern Reach, with the boundary of Area X advancing on her heels. Control flees the facility and is met by his mother, who tells him that Ghost Bird has escaped and that his abusive, uncanny handler was in fact Lowry, the lone survivor of the first expedition. Control has come to understand that his grandfather, Jack Severance, may have been behind the initial perturbation of the lighthouse lens which triggered the formation of Area X. Pursued by Central, he sets out in search of Ghost Bird, certain that the biologist's doppelgänger can halt the anomaly's expansion.

²³⁵ VanderMeer, *Annihilation*, 106, "Many, many more than could possibly have been filed by only twelve expeditions."

Acceptance begins with Control's search for Ghost Bird near the site of one of the biologist's former research studies in the coastal Pacific Northwest. He locates and confronts Ghost Bird just as Central's forces close on them, and both Ghost Bird and Control leap into an underwater portal that transports them to Area X. On the island up the coast from the lighthouse they find Grace, who claims to have been there for three years. Grace has discovered the biologist's "last will and testament," which describes her thirty years on the island using a variety of self-harming practices to delay the transformation of her body. Grace believes that Area X forms an interstellar juncture between two transitional marine habitats, which explains the accelerated rate of decay in Area X and the strange stars in the night sky. The biologist, who is now a massive, amphibious, whale-like organism with thousands of eyes, returns to encounter Ghost Bird. Control grows increasingly delirious, having become infected with the brightness. Control, Ghost Bird, and Grace travel to the tower. Control descends past the Crawler and leaps into the twisting, plantlike light at its base.

I have mentioned that Grace and Ghost Bird appear, in their final chapter, as both the surviving queer, nonwhite, and nonhuman Others *and* as a gestural stand-in for the figural child. While characters like Control, the biologist, and the director may pass for white, *most* of the characters who interface in a lasting way with Area X are queer, of mixed or nonwhite racial ancestry, or both. Prior to the inception of Area X Saul—whose body and intellect are so comprehensively incorporated into the Crawler that fragments of the sermons he gave before abandoning his congregation are scrawled in mossy cursive along the wall of the tunnel—had recently entered a relationship with a man. Control's actual name is John Rodriguez, his surname attesting to his father's Hispanic and indigenous origins in Central America. The biologist has, according to Control, "high cheekbones that spoke to the strong Asian heritage on one side of her

family.”²³⁶ And as a child Gloria, days before Area X’s genesis, boasts to Saul of her mother’s indigenous heritage on the “forgotten coast”: “[m]y ancestors lived here.”²³⁷

That Grace and Ghost Bird walk out of the forgotten coast “throwing pebbles at the air” like children is offset by the fact that most of the childhoods depicted in the novel, even before or outside of Area X, are false or adumbrated childhoods, often childhoods in which the natural world takes the place of one or both parents. The most obvious example is that of the biologist, whose marginally employed father and alcoholic mother, poorly matched and prone to neglect, afford her far less comfort than the tiny but increasingly diverse habitat which slowly overtakes their untended backyard swimming pool. Then there is Gloria’s solitary childhood traversing the swamps, forests, and marshes of the Forgotten Coast, which leaves her largely unaffected—until Area X’s incipience—by her father’s cons. Control’s childhood is marked mostly by the absence of his mother and by his grandfather’s insistently exposing him to surveillance techniques and guns. The little girl glimpsed observing him as he breaks into Gloria’s house redoubles the trope all three of them figure: a child grown up too soon, who sees and hears and knows too much. It’s a critique no less poignant for not having been voiced in *No Future*: Edelman speaks of the “real citizens” whose rights are impinged upon in the name of the figural child as though they are all adults, but many of those “real citizens” are, in fact, children.

Most of these characters (the biologist, Gloria, and Control) would probably *pass for* white. In fact the novel’s insistence on the mixed nature of US American ancestry parallels what critical theories of race actually argue, which is that race is wholly constructed for both “white” and nonwhite individuals alike. This pushes whiteness out of visual coherence and into further

²³⁶ VanderMeer, *Authority*, 19

²³⁷ VanderMeer, *Acceptance*, 20

theoretical affinity with humanism/global capital/Man. As in “The Call of Cthulhu,” whiteness is a psychic or gestural state of horror: an inability to apprehend, reckon, or interface with the vast inhuman world beyond Man. Thurston refuses, again and again, to document features of Cthulhu or to think of the end it portends. Others in his account do the same or go mad from looking. Thurston describes the bursting of Cthulhu’s head, when struck by the bow of the *Alert*, as making “a sound that the chronicler would not put on paper.” Johansen’s crewman Briden “looked back and went mad, laughing shrilly.” “The Thing” which crawls from the crypt on R’lyeh “cannot be described.”²³⁸ Thurston declares that he “shall never sleep calmly again when I think of the horrors that lurk ceaselessly behind life in time and space.”²³⁹ “Who knows the end,” he asks, concluding “I must I cannot think!”²⁴⁰

Lowry and Whitby are the two characters who best embody this gestural state of whiteness, or “gestural whiteness,” in the *Trilogy*. Lowry is the lone survivor of the first expedition into Area X, who subsequently serves as the director of Southern Reach. He confesses to Gloria that he “made contact” with Area X during the first expedition, but is too terrified to return and carry out the conversation: “I’ll never go back.”²⁴¹ This one man’s self-interest and horror, and his subsequent “innovations” with hypnosis, have resulted in nearly 40 years of deaths and wasted resources and countless gifted minds destroyed. Near the end of *Authority*, Control’s mother informs him that it is Lowry who has acted as his hander. His strategy with Control, a scattershot alternation between hypnosis and drunken abuse mitigated by flashes of outright fury, also appears in his exchanges with Gloria. Both his fragility and the

²³⁸ Lovecraft, *The Fiction*, 378

²³⁹ Lovecraft, *ibid*, 375

²⁴⁰ Lovecraft, *ibid*, 379

²⁴¹ VanderMeer, *Acceptance*, 302

destructiveness of his general administrative strategy evidence the great lengths to which he has gone to avoid his own reckoning with Area X.

Lowry also signals a subtler pattern in the *Trilogy*. Both Control and Gloria observe a “rotting honey” smell associated with the characters who embody gestural whiteness. This smell is first observed by the biologist, as “an underlying hint of rotting honey” emanating from the tiny organisms which form the writing in the tower.²⁴² Saul, too, perceives “some underlying hint of too-sweet honey” at the illicit local bar a few hours before he accedes to Area X’s inception.²⁴³ Decades later, during a confrontation of Lowry, Gloria finds that his “breath is sweet, too sweet, as if something’s on the verge of rotting inside him.”²⁴⁴ Control encounters the rotting honey smell over and over in the Southern Reach facility, initially assuming it is a cleaning product and requesting that the janitorial staff switch brands. At Southern Reach the sweet smell is most closely associated with Whitby and is strongest in the spaces associated with him—like the storage closet which provides access to his Santiago Caruso-esque attic mural. As opposed to Lowry, who cannot look, Whitby is the one who looks and goes mad. He accompanies Gloria on her unauthorized trip into Area X and is scanned by the “stitching” while she is in the tower talking with Saul. Whitby later describes the experience as “a *wall* behind me, running through me.”²⁴⁵ Later, at the lighthouse, Whitby confronts and murders his own double—or does his double murder him? Later in the sequence of events, Control encounters but fails to recognize Whitby in the storage closet, describing him as a crouching “pale creature” deformed by “[a]n

²⁴² VanderMeer, *Annihilation*, 23

²⁴³ VanderMeer, *Acceptance*, 255

²⁴⁴ VanderMeer, *ibid*, 121

²⁴⁵ VanderMeer, *ibid*, 90

unbearable yet beatific agony.”²⁴⁶ This is the visage of humans who, faced with enstrangement, are unable to bear it.

That the monstrosity of those who look away is not altogether different from the monsters produced by Area X is not an inconsistency. The biologist concludes, after recognizing the human face of the psychologist from the “last eleventh” expedition in a protuberance of a monstrous wild boar’s neck, that Area X can make mistakes. She resolves to prolong her own transformation through repeated acts of self-harm. Later Ghost Bird and Control find the same boar’s rotting carcass in the marsh: “the confluence of a giant hog and a human being, a set of smaller ribs suspended from the larger like a macabre internal chandelier.”²⁴⁷ We might consider these failed instances of enstrangement, humans who could or would not carry on in their new form. But the biologist later suspects that these ugly assemblages are the result of what a person *brought in*. And in fact, the psychologist from the “last eleventh,” the man imprisoned in this boar, was intentionally hypnotically imbued with Lowry’s objectives and expectations. It may have been Lowry’s ugliness—his insistence on self-preservation and his inability to look on the end of Man—that set the stage for this monstrosity. And probably many others, since there were graceful transformations, like the biologist’s owl companion and the dolphin with the “all-too-human” eye. Control is described, at the end, as having paws, and I picture in his slight runner’s frame the beginnings of a puma. The biologist’s new form, for all its hybridity, is very profoundly *her*: vast as her intellect; amphibious in expression of her love of transitional habitats; and provided with thousands of eyes with which to observe, to know.²⁴⁸

²⁴⁶ VanderMeer, *Authority*, 179

²⁴⁷ VanderMeer, *Acceptance*, 34

²⁴⁸ VanderMeer, *ibid*, 195

Control's relationship to gestural whiteness is complicated both by his mixed parentage and the strong association—through their work for a clandestine government organization—of his grandfather and mother, Jack and Jackie Severance, with the genesis of Area X. Jackie is furious when Jack gives a teenage Control/John a .45 caliber revolver for his birthday, but she repeatedly sends him into difficult and morally compromising professional contexts, manipulating his career to a paranoia-inducing degree, until her own is cut short by the escape of Ghost Bird and the further expansion of Area X. During his time at Southern Reach, Control comes to believe what Gloria and Grace had suspected: that Jack Severance was behind the machinations of the Seance and Science Brigade whose agents manipulated the lens in the lighthouse, triggering Area X. Control is so profoundly affected by this implication and Jackie's frequent betrayals by obfuscation that when the Crawler, in an attempt to stymie his descent, shows him his mother, he sees it immediately as a trick, slipping easily past the juncture where the biologist had instead been pinned and debilitated. After a lifetime of psychological manipulation at the hands of the very same family who brought about Area X's inception decades earlier, Control is perfectly prepared to see past the powerful psychic and bodily manipulations the anomaly effects. In fact, Control and Area X are the human and inhuman progeny of the same perversely instrumentalist minds. Little wonder that their fusion alters the anomaly and perhaps halts its expansion.

The reason why Control's entry (or perhaps it could be thought of as the Severance lineage's return) into the plant flame at the base of the tower is able to change Area X is related to what Area X actually is and does. There is, of course, no proper "human" explanation for Area X. Control suspects it is a long-inactive AI created by a remote, highly-advanced, dead civilization. But in general terms, Area X can be understood as an autopoietic system,

purposeless except for maintaining its own operational closure and internal autopoietic processes.²⁴⁹ Area X, working with the mineral and biological raw materials afforded it, “manipulat[es] the genome, work[ing] miracles of mimicry and biology” in order to manifest the interactive self-articulation common to all autopoietic systems, perpetually asking and answering the questions “What am I?” and “What is not me?” The entrance to Area X is an organ of perception, a gated channel through which the system takes in external stimuli from which to establish a sense of the external world, much like the molecular pumps cells use to draw substances through their membranes. The “brightness,” the horrific transformations, and the doppelgängers are all biomechanical signifiers which further this process of articulation of self. Area X’s manipulations go awry either because, as Ghost Bird suggests, humans are “these incredibly blunt instruments,” or because beauty and coherence as humans see it do not serve the system’s autopoietic needs.²⁵⁰

This is why Ghost Bird cannot “commit to anything other than wanting to know—herself and Area X,” why she “want[s] to know who I am,” why she claims that she is “not an answer [... but] a question.”²⁵¹ The human doppelgängers, an iterative refashioning of an external stimulus in biological form, are Area X’s attempt to declare what *is* self in the molecular grammar and syntax of the “not self” it perceives. It transmits that self back to the outside as a perpetual test and reaffirmation of identity. To put it differently, Area X has spit out, over and over, comprehending beings after the fashion of the comprehending beings which are its main external input—with the ultimate intent of producing a comprehending being that can

²⁴⁹ Maturana and Varela, *Autopoiesis and Cognition*, xiii, xv, xviii; Varela and Maturana, “Autopoiesis”, 85-86; Varela, “Introduction”, 10-15

²⁵⁰ VanderMeer, *Acceptance*, 81

²⁵¹ VanderMeer, *Authority*, 339; VanderMeer, *Acceptance*, 33, 37

comprehend *it*. Ghost Bird comes closest, concluding, finally, that infection might be “a message” and “a brightness a kind of symphony.”²⁵² She succeeds because the biologist upon which she is modeled is the closest a human can come to suspicion of and dissociation from one’s own humanity. When the dying director tells the biologist that she’s not changing, merely “becoming more of what you’ve always been” she means something akin to what Mark Spitz means when he claims to be or have become “more me.” In her final mania, the surveyor demands that the biologist tell her her name: the biologist refuses not because she does not know her own name but because she does not and perhaps never believed in being named—in being known in any truly human sense. She is the director’s “defiant weapon, hurled against the walls of Area X” because of the detachment of never having wanted to be fully human.²⁵³

The biologist is skeptical of objective knowledge not because she is skeptical of scientific inquiry or invested in constructionism, but because she understands that sense organs, the first layer of what Karen Barad would call the “agencies of observation,” are so absolutely linked to external observation as to make objective observation absolutely impossible: “I knew from experience how hopeless this pursuit, this attempt to weed out bias, was. Nothing that lived and breathed was truly objective—even in a vacuum, even if all that possessed the brain was a self-immolating desire for truth.”²⁵⁴

The mimicry so pervasive in Area X enhances this consciousness of observational bias in the biologist, who becomes “convinced that when I wasn’t looking at them, these cells became

²⁵² VanderMeer, *Acceptance*, 189-90

²⁵³ VanderMeer, *ibid*, 4

²⁵⁴ Barad, *Meeting the Universe Halfway*, 106, 114, 124, 128; VanderMeer, *Annihilation*, 8

something else, that the very act of observation changed everything.”²⁵⁵ “What can you do when your five senses are not enough?” she asks, recalling her encounter with the Crawler.²⁵⁶ But over and over she is her own answer. The biologist is the one who insists on observation, even knowing these abject limits to looking and having been told not to look: “We had been told not to look back upon arrival [across the border], but I snuck a glance anyway.”²⁵⁷ The biologist is the rare individual who will look anyway, who will, failing all else, have the courage to *cease to be what she is*, to be wholly changed, in order to know. This is why the biologist, in her final form, has “many, many glowing eyes that were also like flowers or sea anemones spread open, the blossoming of many eyes—normal, parietal, and simple—all across her body, a living constellation ripped from the night sky.”²⁵⁸ It is also why Ghost Bird, finally and for perhaps the first time, as the biologist in her new, vast, transmarine form, holds her in “the multiplicity of her regard,” feels fully seen. Mirrored like Control and Area X, one originating within and one without, one entering to change and persist, the other exiting to persist and change—the biologist and Ghost Bird are the raw potential Area X unleashed on two worlds. A human rendered nonhuman enough to truly look upon the human nonhuman output of Area X, there—and perhaps only there—Area X the iterative autopoietic system truly comprehends itself. Control, too, in carrying back the burdensome knowledge of his mother’s and grandfather’s involvement with its genesis, answers in greater depth another aspect of Area X’s perpetual question: “What am I?”

²⁵⁵ VanderMeer, *Annihilation*, 159

²⁵⁶ VanderMeer, *ibid*, 178

²⁵⁷ VanderMeer, *ibid*, 11

²⁵⁸ VanderMeer, *Acceptance*, 195

This is not to say that Area X was actually comprehensible. Hsyu, linguist at Southern Reach, best articulates the incompatibility between human perceptual and cognitive processes and Area X's machinations. Hsyu insists that "language is only part of a method of communication" and "isn't even the important part," but a mere "conduit."²⁵⁹ Area X, in the words of the biologist, "breaks minds" because the human mind works through categorization and analogy, and what Area X shows us lies outside of known phenomena: "Because our minds process information almost solely through analogy and categorization, we are often defeated when presented with something that fits no category and lies outside of the realm of our analogies."²⁶⁰

It breaks organizations, too. Gloria understands this very well by the end of her long directorship, coming to understand that the words in the tunnel are, "a kind of trap, a way to become distracted," that, as Maturana has put it, "[a] semantic question had to be changed into a structural question."²⁶¹ "Have we been compromised by our own data?" Grace asks. "The answer is: of course."²⁶² "It is superstition," she admits to Control, about the institutional reluctance to reproduce the words in the tunnel for fear that they may have triggered Area X's formation. "But it might be true."²⁶³ This defensive commentary on the facility's research is perhaps the most incisive indicator of how this sensory and intellectual waywardness has affected the organization at large. Many suspect or understand outright that very little can ultimately be known about Area

²⁵⁹ VanderMeer, *Authority*, 106

²⁶⁰ VanderMeer, *ibid*, 113

²⁶¹ VanderMeer, *Acceptance*, 56; Maturana and Varela, *Autopoiesis and Cognition*, xvi

²⁶² VanderMeer, *Authority*, 39

²⁶³ VanderMeer, *ibid*, 104

X. Some forty years of pretense to the contrary manifests as institutional morale and infrastructure as broken as Whitby's mind.

It is not, then, that no one else perceives the insufficiency of human observation, but that no one else is so desperate to know, so willing to look upon the vast, inhuman, destructive force—to look upon the end of the human—and allow herself to be changed. Before the biologist describes her encounter with the Crawler, she recalls an experience from several decades before, her observation of a large, predatory starfish, a “destroyer of worlds.” This passage makes clear that Area X did not force this capacity for keen, objective, and simultaneously ecstatic observation upon her. She brought it to Area X. Her life, which even in childhood was dedicated to the observation of nonhuman systems, has left her with the capacity to lose her sense of human self:

this creature, which had indeed been assigned a place in the taxonomy—catalogued, studied, and described—irreducible down to any of that. And if I kept looking, I knew that ultimately I would have to admit that I knew less than nothing about myself as well [...] When I finally [...] stood again, I could not tell where the sky met the sea, whether I faced the water or the shore. I was completely adrift.²⁶⁴

As the biologist closes on the Crawler she attempts to observe and describe it “changing at a lightning pace,” the sounds and visual impressions she attributes to mimicry based on images drawn from her own mind. Earlier she is told not to look and then looks. Here she exclaims that description is impossible, “*No words can... no photographs could...*,” and yet for page after page attempts to describe.²⁶⁵ Eventually the Crawler turns its full attention on her, and the experience is not merely disorienting but excruciating. The Crawler's perception rushes in on her senses, giving her the impression of water, of drowning:

²⁶⁴ VanderMeer, *Annihilation*, 175

²⁶⁵ VanderMeer, *ibid*, 176, 179

I wanted to live—I really did. But I couldn’t any longer. I couldn’t even breathe any longer. So I opened my mouth and welcomed the water, welcomed the torrent. [...] A raging waterfall crashed down on my mind, but the water was comprised of fingers, a hundred fingers, probing and pressing down into the skin of my neck, and then punching up through the bone of the back of my skull and into my brain [...] It was the most agony I have ever been in. My mouth opened so wide from the shrieking that something popped in my jaw. [...] there came a *push*, and the Crawler tossed me aside²⁶⁶

This is the annihilation of self that causes Thorton to refuse to think. The biologist’s ultimate understanding of Area X, her decision to fight her transition by means of self-harm for decades, and her eventual decision to let herself change, that “[i]n this form, in this body, I will never know” are all informed by this particular moment.²⁶⁷ Ghost Bird remembers this encounter, which means that it is the biologist who “opened my mouth and welcomed the water” that is copied. Perhaps this openness is the reason Ghost Bird is so complete, as full of memory and agency and life as her predecessors had been vacuous and cancer-riddled.

I hadn’t thought of VanderMeer’s *Annihilation* as horror until I went to see Jeff Gardner’s 2018 film adaptation. I was surprised when the previews were all for horror films, and surprised, ultimately, at the horrific nature of the feature itself. I had long had the impression that VanderMeer an author whose imagination outstripped my own. But the funguslike infections on human skin, the graphic details of expedition members subsumed by flora and fauna, none of this registered to me as obviously horrific until the literal scenes conveyed in Vandermeer’s beautiful prose were rendered, instead, as unmediated visual images. There was, it seemed to me, something uniquely affecting about *seeing* these phenomena—rather than reading and picturing them for myself. There is something about *seeing* the dissolution of human flesh and the human form—and surely, also, *feeling* or *touching* such compromised tissues—that is uniquely

²⁶⁶ VanderMeer, *ibid*, 180-82

²⁶⁷ VanderMeer, *Acceptance*, 179

confounding to the psyche. And not just *seeing* as though it were a casual act. What we do at a horror film is not seeing but looking. We commit a kind of violence against the self by forcing ourselves to look upon what the mind, for various reasons, does not want to see.

In *On Suicide Bombing*, Talal Asad contrasts horror with terror, arguing that horror is a kind of objectless affective state with no positive counterpart: “Horror is not a motive but a state of being. Unlike terror, outrage, or the spontaneous desire for vengeance, horror has no object. It is intransitive. [...] If fearlessness is a positive alternative to terror, there is no parallel to horror.”²⁶⁸ Horror, according to Asad, stems from “the perception that *our own* identities are precarious [including] those of other humans—and not only the identity of individual humans but also that of human ways of life.”²⁶⁹ Terror, fearfulness, fearlessness, anger, vengeance: these are emotions grounded in and to some degree dependent upon social context. States of horror, by contrast, often confound verbal communication, manifesting as “[t]he inability to recount that experience, to grasp it verbally.”²⁷⁰ And in many cases, Asad notes, horror is brought on when “one is presented [...] not just with a scene of death and wounding but with a confounding of the body’s shapes.”²⁷¹ There are obvious links here with the Lacanian Real. Asad also points to the Burckian “Sublime,” in which “infinite emptiness, darkness, and silence were inhuman, manifestations of a timeless absence of form [...] a source of fear of the unknown but also of awe experienced as horror.”²⁷² Arising from the mutilation of human bodies, human bonds, even the human social order, “[h]orror explodes the imaginary, the space within which the [...]

²⁶⁸ Asad, *On Suicide Bombing*, 68

²⁶⁹ Asad, *ibid*, 68

²⁷⁰ Asad, *ibid*, 72

²⁷¹ Asad, *ibid*, 70

²⁷² Asad, *ibid*, 73

persona demonstrates to itself its identity.”²⁷³ Area X and R’yleh are, in fact, “awesome” in the worst of ways, and conform rather keenly to Asad’s characterization.

What these passages from *On Suicide Bombing* emphasize, what *Southern Reach Trilogy* stages over and over, is the very strong human link between bodily integrity and identity. When both are compromised, as with enstrangement, the response is often horror. Every major character in *Southern Reach Trilogy* observes or experiences extremely disturbing infections and transformations effected on human bodies. Some, like Lowry, respond with retreat, abuse, and substance abuse—a refusal to look, to speak, to think. Others are very quickly and painfully subsumed. Still others willingly and repeatedly self-torture to prolong their transformation. But it is not, ultimately, a matter of who *will* and who *will not* be transformed. Area X expands at will and without warning, and there is no knowing, even after Control manages to change it, how much or in what way it has been changed. Lowry retains his own form, but carries the smell of sweetness associated with the fungus in the tower. Chrisitan David Zeitz has argued that Area X can be understood as “an agential exosystem-shifting force, an allegorical Anthropocene.”²⁷⁴ Using the vocabulary of Bruno Latour, Zeitz describes Earth—much as I have argued—as “a nonhuman actor-network whose alterations effect alterations in the morphisms of the human.” The monsters of anthropogenic climate change, “the monsters of what-we-have-done-to-the-earth, will ultimately get us, precisely because we irreducibly intra-act with our Anthropocene.”²⁷⁵ That vast inhuman represented by Area X permeates us all, is coming for us all, and the result will not be interesting ideas and culturally diverse art projects. The only

²⁷³ Asad, *ibid*, 68-9

²⁷⁴ Zeitz, “A Lesser Human Future,” 3.

²⁷⁵ Zeitz, “A Lesser Human Future”, 3

question is whether we, as individuals, can it is possible to pass through this state of horror to something else.

The overall juxtaposition I am drawing is between those who can look on the end of humanism as represented in the vast, incomprehensible nonhuman, who can give themselves up to it, and those who cannot. My archive suggests that horror lives in the minds of those who cannot look, cannot speak, cannot bear to be changed. Jeff VanderMeer's work is notable for its perspicacity in applying scientific knowledge. But earlier works, even much earlier works, do the same. In "The Call of Cthulhu," Thurston references archaeology, anthropology, biology, and geology with alacrity. The biologically horrific scenes in *Southern Reach Trilogy*, the two ribcages inside the decaying wild boar, the psychologist's arm "colonized by a green-gold fuzziness, which gave off a faint glow" are not in the least anomalies among works in which the nonhuman threatens the world of Man. The passage in which Cthulhu's split flesh reforms, after Johansen rams it with the *Alert*'s hull, is a notable example.

According to Johansen's written account, on March 22, 1925 the yacht *Alert* intercepted the *Emma*, ordering it to turn back. When Johansen's captain refused, the *Alert* fired on and sank the *Emma*, whose remaining crew boarded the *Alert*, killing its crew. They then sailed the *Alert* at their previous heading, anchoring after a day on an unmapped island with a city of obscure geometry composed of the same greenish stone as Legrasse's statuette. The crew pried open a crypt atop the island, and a "gelatinous" monster crept from it and pursued the men back to the *Alert*, killing four sailors in the process. Cthulhu pursued the yacht in the water, and Johansen drove the prow into the monster's head, which burst and then reformed into its prior octopoid morphology:

There was a bursting as of an exploding bladder, a slushy nastiness as of a cloven sunfish, a stench as of a thousand opened graves, [...] the ship was befouled by an acrid and

blinding green cloud, and then there was only a venomous seething astern; where—God in heaven!—the scattered plasticity of that nameless sky-spawn was nebulously *recombining*²⁷⁶

Central has a few such experiences, and he makes an interesting study in this regard, given his transition from fixer figurehead of the establishment to fixer of his warped familial legacy. Over time, his response to enstrangement, to disorienting, decentering nonhuman phenomena, changes so much that he is able not only to look upon but slip past the Crawler and *enter* the light. His experience of the shark when he and Ghost Bird first drop into Area X both mirrors the biologist's sense of drowning in her encounter with the Crawler and reminds the reader that these experiences can originate from Earth environs and organisms just as much as the creepy machinations of Area X:

they had emerged into a roiling school of some kind of barracuda-like fish now being disrupted by a larger predator. There came an awful free-falling emptiness... the quickly closing space where the enormous shark had sped through the vortex, annihilating fish in a crimson cloud [...] The side of his face slid half raw against its gills. The frill and flutter sharper and harder than he could have imagined as it sculpted him, the expulsion of water a roaring, gushing piston in his ear, and the huge yet strangely delicate eye away to his left staring into him. Then his stomach was banging into its body, his bruised waist smacked by a swipe of the tail²⁷⁷

The shark reminds Control, in the moment of Lowry, but the shark's "huge yet strangely delicate eye" serves, like the eyes on the biologist's changed body, the "all-too-human eye" on the dolphin, and the spiral-shaped plant-like light originating from the lighthouse lens itself, to signal the unsettling regard of nonhumans, a conscious awareness staring out from nonhuman physiognomy. This passage, which concludes with a diaphragm-shocking blow to the gut by a massive shark's tail, marks a turning point in Control's development: this is the beginning of his

²⁷⁶ Lovecraft, *The Fiction*, 378

²⁷⁷ VanderMeer, *Acceptance*, 74

(for lack of a better word) *acceptance* of the vast inhuman forces shaping his life and the difficulty of the one honest path afforded him. Whereas the biologist was ready, from her not very childlike childhood, for Area X, Control must come to terms with the end of Man. In Control, the long legacy of horrified “must not look” comes due. In Control, Lovecraft’s Thurston wills himself to look, to speak, and to act.

The beauty of VanderMeer’s prose, in the above passage, is outdone here only by its beatific insistence on the inevitable but also entirely circumstantial rough treatment Control will receive. His preceding trip along the coast in search of Ghost Bird might be read as a settling or reorientation which prepares him to receive, to understand:

He understood why the biologist liked this part of the world, how you could lose yourself here in a hundred ways. How you could even become someone very different from who you thought you were. His thoughts became still for hours [...] The frenetic need to analyze, to atomize the day or the week fell away from him—and with it the weight and buzz of human interaction and interference²⁷⁸

The biologist might be uniquely suited to comprehend Area X, and some of us may be more like the biologist than others, but most of us are as entangled in the human world as Control. If Control, the undercover agent, interrogator and fixer, the everyman of the “caught up,” whose puppet strings run straight to the knotted heart of what makes the establishment go, can lose himself in a landscape then there is still a chance that we might exit the Anthropocene—might lose ourselves in that entirely definitive and unknown future—with some dignity. That we might make, when the time is right, the act of sacrifice that makes a new world possible.

VanderMeer also refuses to draw clear distinctions between Area X and the natural world as we know it—both in the sense that Area X “follows” Ghost Bird to the remote Pacific Northwest and in the sense that Area X itself is a true refuge, cleaned of toxins and teeming with

²⁷⁸ VanderMeer, *ibid*, 327

life. Area X, that is, is “clean” as only an Earth extinct of humans would be clean. Both the biologist and Ghost Bird are struck, over and over, with the natural beauty *inside* of Area X, and the passages themselves are beautiful, lapsing into iambic and dactylic meter which knits the indigenous and exogenous “inhabitants” of the “forgotten coast” together insisting—as does Control’s encounter with the shark—on the truth that the incomprehensible nonhuman is, in fact, a constant and incontrovertible part of daily life:

Yet still the blue heron in the estuary stalked tadpoles and tiny fish, the black vulture soared on the thermals high above. There came a thousand rustlings among the islands of trees. Behind them, on the horizon, the lighthouse could be seen, might always be seen, even through the fog that came with dawn, here noncommittal and diffuse, there thick, rising like a natural defense where needed, a test and a blessing against the landscape.²⁷⁹

The incursion of the nonhuman is not in fact exceptional. Just as Area X has actually polluted all of Earth, so we are surrounded by radically disorienting nonhuman morphologies and lives. We have but to observe, to be willing. What we will find there, what the biologist finds in her minutes or hours with the “destroyer of worlds,” is utter disorientation, loss of self, the *annihilation* that comes of seeing our true place in the world.

My archive would have us lose ourselves in that nonhuman world. The plain truth is that we do not and cannot know what is coming. Any conjecture, any hopeful gestures at projects or artifacts existing *now* entirely miss the point. Like many moving and memorable stories, *Southern Reach Trilogy* is the story of people caught up in vast, inhuman forces, people leveraging what intelligence and will they have—in some fashion or other—to know or survive or both. Gloria in search for Saul, of remnants of her mother, spending her life trying to *get back in*, is just one example of how this trilogy is the story of the tiny and often failed attempts of a handful of gifted and well-meaning humans who are, for the most part, wasted by the larger

²⁷⁹ VanderMeer, *ibid.*, 264

human world. “I am not returning home,” writes the biologist, choosing where in fact she had no choice.²⁸⁰ There will be no restoration, no repair, no return from the end of the Anthropocene. We have only our own poorly-exercised capacity to struggle and reckon with the inhuman forces that shape us. As Saul thinks, falling on that fateful night at the site which becomes the tower, “[p]erhaps there is no shame in this, perhaps I can bear this, fight this. To give in but not give up.”²⁸¹ Or as Gloria writes in her letter to Saul decades later: “The world we are a part of now is difficult to accept, unimaginably difficult. I don’t know if I can accept everything even now. But acceptance moves past denial, and maybe there’s defiance in that, too.”²⁸² Not just defiance but beauty is, I would argue, what the *Trilogy* finds in acceptance. This beauty is more than evident in the form the biologist acquires after “[h]aving decided to finally let the brightness take me,” having given up the routinized self-harm which allowed her to keep her human body:²⁸³

Nothing monstrous existed here—only beauty, only the glory of good design, of intricate planning, from the lungs that allowed this creature to live on land or at sea, to the huge gill slits hinted at along the sides, shut tightly now, but which would open to breathe deeply of seawater [...] All of those eyes, all of those temporary tidal pools [...] An animal, an organism that had never existed before or that might belong to an alien ecology. That could transition not just from land to water but from one remote *place* to another, with no need for a door in a border.²⁸⁴

The biologist leaves behind a list of the “best, least intrusive approaches” for holding back the transition presaged by the brightness, “methods to almost drown, almost suffocate [...] that can fool whatever lies within you.”²⁸⁵ Just as self-harm is the way to hold back the incursion of the

²⁸⁰ VanderMeer, *Annihilation*, 195

²⁸¹ VanderMeer, *Acceptance*, 326

²⁸² VanderMeer, *ibid*, 338

²⁸³ VanderMeer, *ibid*, 156

²⁸⁴ VanderMeer, *ibid*, 196

²⁸⁵ VanderMeer, *ibid*, 179-80

nonhuman in Area X, so our own resistance, here at the end of the Anthropocene, to abandoning old epistemologies, to taking up new ways of knowing and living is, ultimately, a collective self-harm. In a more general sense, my archive suggests, any effort to preserve the humanist self at the end of the world of Man is a kind of self-harm, a rigid denial that will break one's mind on the rocks of what is real (or Real). These works show us a different way; a way of great pain, great loss, but also unexpected beauty. A collection of artifacts to turn a devastating, terrifying story into a hopeful story is an old strategy. It is time for new strategies (or, perhaps, *even older* strategies). It is time to let ourselves, our knowledges, our discourse be broken in the way that Area X breaks minds. Perhaps something better is coming. In this form, we will never know.

What We Owe the Potential of Bo's "New World": Science, Collective Truth, and the Near Future

There are always limits.
~ Immanuel Wallerstein²⁸⁶

Even with our greatly improved knowledge
of epigenetic mechanisms today, there is
little, or no, novel support for Lamarckism.
~ Allis et al., *Epigenetics*²⁸⁷

Professor Robert Freckmann was the plant taxonomist under whose tutelage I learned, among other things, that I was not temperamentally suited to become a plant taxonomist. A capacious generalist and fascinated by his discipline, he often joked that the reference materials in his field (which consist mainly of long lists of Latin names, morphological descriptions, and geographical distributions) were too exciting for bedtime reading. Dr. Freckmann's taxonomic skills were exceptional. Once, when returning from a conference in Missouri, I watched him off-handedly identify every grass and sedge in the interstate median for several miles—while driving the university van at 70 miles an hour. I was ultimately far more interested in biological and ecological systems than taxonomy, but my classmates and I adored and respected our professor and his card catalog of a mind.

Our time with Dr. Freckmann, our education in plant taxonomy and ecology, made us increasingly aware of damage that most humans did not see. What might previously have appeared to be simply a field of marsh grass we now understood to be *Phalaris arundinaceae*, an invasive European species introduced by the USDA which, with access to excessive nitrogen

²⁸⁶ Wallerstein, *The Decline of American Power*, 225

²⁸⁷ Allis et al., *Epigenetics*, 54

runoff, would grow in thick, rhizomatous stands that choked out orchids and other rare wetland plants. The bright panicles of Purple Loosestrife visible among the *Phalaris* signaled not the arrival of an invasive plant to a heretofore undisturbed marshland but the arrival of a *new* invasive plant to a system first compromised—intentionally, by the USDA—in the late 1800s. Every habitat we visited on class field trips had been destabilized, polluted, or degraded for decades if not centuries. It is hard to be hopeful when loss is legible in every square meter you examine. Like many of my classmates, I had been raised in a humble but environmentally conscious household. My father was notorious in our rural township for picking up litter on my parents' daily walks. "Man the animal," he often remarked, when we encountered an illicit dump site in a ditch or in the woods. More than once, one of my classmates expressed alarm, disgust, or rage at the condition of these habitats. And Dr. Freckmann always replied that it would take *only* 10,000 years for Earth to erase all signs of human habitation.

There was gravity in this statement, in the idea that human extinction might produce the best long term outcomes for the planet. There was also levity, in the irreverence with which our professor shifted meaning and value—with that simple, factual declaration—outside of human systems and scales of time. In geological time 10,000 years is like the blink of an eye. It relieved me of a great deal of guilt to know that the sins of my fathers could in time—however long—be undone. I remember the revelation it initially presented to me: this was the knowledge that enabled informed adults to go on living, to drive cars, own homes, and buy meat at the supermarket. We would, at some point, come to an end of our own accord and the planet would heal. I would never be feckless, but I was free to live my life. Dr. Freckmann's deep time perspective on the accoutrements of human civilization never left me. And when works like Alan Weisman's *The World Without Us* appeared fifteen years later I was pleasantly surprised. The

double vision with which I am always seeing our world was finally reflected in something other than a natural science textbook.

This project has attempted to find a philosophical and political home for Dr. Freckmann's perspective in present-day, popular and progressive consciousness. In the simplest sense, it is about the ethos of living simultaneously in both the present and in geological time. I use ideas from genetics, evolution, and deep time—which humans have, ironically, invoked to raise alarm about anthropogenic climate change—in order to think differently about humans themselves. I think about human hegemony on Earth not as an inevitability but as a flash in the pan of a long-lived and ever-changing planetary system, not the point or the end of the story, less than a chapter, a single sentence, or perhaps even a single word. Apparent even in our alarmism about anthropogenic climate change, even in the screeds of the most radical of environmentalists, is the underlying belief that the end of human life and cultures will be a great loss to the universe. It certainly will be a great loss—for us. But the plain truth is that the universe doesn't give a goddamn. Believing otherwise is the unstated hubris which interferes with our vision of and planning for the future. My archive explores this very real possibility that Earth's most wondrous epochs are yet to come—and that they do not include us.

I come to this conclusion by simple conjecture. Even if Earth remains habitable to humans fields like genetics, epigenetics, and evolutionary theory suggest that the changes humans have made to Earth may in turn effect changes in humans. Changes so extreme as to render us unrecognizable to ourselves—to render future generations nonhuman. The unspoken belief underlying most humanist and posthumanist arguments, the idea that a loss of the human means the loss of humane and ethical conduct, is called into question at every stage of this project. This belief is, in my opinion, unsupported by the consistently cruel and irrational

behavior documented throughout human history. It is also a barrier to truly ethical, sustaining, and sustainable action in the near and post-Anthropocene future. To this end, I argue that ecocriticism addressed to anthropogenic climate change and what comes after must reorient to acknowledge, accommodate, and celebrate the very real possibility of nonhuman posthuman futures.

The ideas outlined above are taken up from a different angle in each chapter in this project. The crisis in the humanities is, in my opinion, ultimately a teleological crisis brought about by the challenge to human hegemony implicit in the combination of anthropogenic climate change and recent findings in genetics and epigenetics. Even if I were to entertain, for a moment, the social Darwinist assertion that humans are the evolutionary pinnacle of life on Earth, there is absolutely no logical reason to assume that evolution on Earth has ceased. And the fact that evolution never ceases presents a problem for ethical and metaphysical ideals prefaced on a stable definition of the human. The mechanisms of evolution undermine progressive, neoliberal, and even social Darwinist narratives which envision the social or biological evolution of humans without acknowledging the very real possibility that such alterations would result in something not human at all. What we know today about the natural sciences qualifies (our supposed) human hegemony as only a temporary state of conditions: we must remake our understandings and use of the human in kind.

There are artifacts extant today which address themselves to these questions. My examination of these artifacts has coalesced into a three-part argument which includes the following: first, a high-level assertion that nonhumans and the alterity of nonhuman existence present a pathway to new and necessary kinds of futures beyond the Anthropocene; second, an argument for the utility of the posthuman (emphasizing the literally nonhuman) in identitarian

discourses including queer theory and Black studies; and third, the definition of a unique subgenre of post-apocalyptic narrative, called end of the world dystopia, which imagines and often celebrates what comes after the end of Man. Each chapter in this project takes up different aspects of this three-part argument, and each theorizes a distinctive aspect of the works in my archive.

Chapter 1, “‘Your Children Will Know Us, but You Never Will’: Xenomorphs, *Xenogenesis*, and (Queer) Futurity at the End of Man,” first defined end of the world dystopia, a subgenre of post-apocalyptic narrative which takes place on or returns to an irreparably damaged Earth. End of the world dystopia is identified by three distinct tropes: first, survivors tend to be nonwhite, crip, or queer; second, the narratives alter or decenter the human; third, one or more characters undergo a process of enstrangement. The chapter then applied queer theory’s most incisive critiques of teleological cultural narratives to works of end of the world dystopia featuring crip and queer protagonists, invoking Lee Edelman’s elaboration, in *No Future*, of reproductive futurity and his identification of the figural child through which reproductive futurity is deployed. I found, in Butler’s trilogy and other works, the figure of the enstranged: a figural alternative to the *sinthomosexual* who represents not a nostalgic, pro-cultural, non-reproductive turning back toward the world of Man but a turning away. From this figure nonhuman futurities proliferate. This examination of reproductive futurity in early works of end of the world dystopia finds that posthuman futures proliferate where bodies and cultures merge, deeply and permanently, with the nonhuman. And where the savage and utterly not-of-this-Earth alien nature of the nonhuman is rejected, the result is a retreat to what Edelman calls queer negativity.

Edelman, though he does reference the dystopian science fiction world *Children of Men* in *No Future*, writes primarily in critique of establishment humanism. Because Edelman is not interested in the end of the human, his *sinthomosexual* quite logically turns away from reproductive futurity without surrendering its attachments to human culture. But Edelman's critique of the ways in which humanism teleologically frames itself begs important biological questions. In the same way that ceasing to reproduce and rear children signals a species-wide contradiction or impossibility, so too does a population's ceasing to evolve in response to environmental pressures present a biological contradiction or impossibility. Because reproductive futurity characterizes the rhetoric around a process (human reproduction) that is biological as well as cultural, its full implications cannot be understood without recourse to the natural sciences. It might be reactionary to frame political discourse around reproduction, but over longer time spans, and especially in the context of irreversible anthropogenic climate change, it is a critical cultural vulnerability to willfully deny the eventuality that is the end of the human as we know it. There are certainly long-lived species to be found on this planet, but few species survive unchanged. Works like *Xenogenesis Trilogy* force this reality, shifting questions of reproductive futurity and the figural child into a biological and evolutionary context.

Chapter 2, "Because You 'Can't Fix What's Broken': End of the World Dystopia and the Black Posthuman in *M Archive* and *Fast Color*" therefore focused on Black women and the Black female body as a site where narratives and exclusions are revised and exceeded, drawing on works which celebrate Blackness and Black women as a point of transit from this world to what comes after. Building in unexpected ways on Hortense Spillers' sense of the vestibularity of Black women, both *M Archive* and *Fast Color* position Black women in particular as the inheritors the nonhuman posthuman. In this chapter I defined autopornotroping as a kind of

critical figural allusion to pornotroping, which Spillers defined as a fetishistic filmic portrayal of brutality in slave narrative. Autopornotroping is particularly apparent in *Fast Color*, where it figures Ruth's wounded attachment to the slave past. Ruth must resolve this wounded attachment in order to gain control of her powers and initiate the nonhuman posthuman future she will share with her daughter. The protagonists of end of the world dystopia frequently abandon the wounded attachments which link them to present-day social justice imperatives as the world of Man disintegrates. The works in my archive turn away from justice, toward the possible nonhuman futures that mark the end of Man.

My strategy in reading Blackness and Black women in end of the world dystopia was modeled on Jennifer Nash's *The Black Body in Ecstasy*, which opposes the reparative trend common to Black feminist work on pornography. In applying Nash's theoretical approach to exclusionary definitions of the human, I did not question the idea that the human has often been defined to the exclusion of nonwhite and otherwise non-normative humans, in particular Black and indigenous populations. Instead, I questioned whether this exclusion's portrayal in narrative forms including fiction, poetry, and film is always a simple expression or reiteration of bias. In the case of genres like horror and science fiction, and especially in end of the world dystopia, characters marked by these exclusions are often the characters who survive. It is possible to argue that in these narratives Black people survive the end of Man because they are understood by the culture to be animalistic or less than human. But it is also possible that these works express latent anxieties about the precariousness of the world of Man, and that they orient themselves around protagonists on the margins of the human because they seek a way out and forward, an imaginary that decouples humane and ethical living from humanism and the material cultures of Man. This association of the end of the world with nonwhite and especially Black

survivors is apparent as early as the 1920s, in W.E.B. DuBois's "The Comet" and Lovecraft's "The Call of Cthulhu." It appears in Romero's original *Night of the Walking Dead* and persists to this day in much of the zombie apocalypse genre, including AMC's *The Walking Dead* and Colson Whitehead's *Zone One*. When the world of Man is falling to pieces, the double-vision which allows one to see and think outside culture, while often acquired through exclusion and even injury, is perhaps the only real advantage.

Chapter 3 was also addressed, to a great extent, to considerations of race and its meaning with regard to terror and cataclysmic change. "'Nothing Monstrous Existed Here': Horror at End of the World," leveraged theories of horror elaborated by Robin Wood and Talal Asad, focusing on horror and the nonhuman. Chapter 3 first revisited "The Call of Cthulhu" to identify and theorize an affective state which I called "gestural whiteness," a bodily horror in response to the prospect of the end of Man, expressed as an inability to think, look, or speak. This affective state is found not only in early examples of science fiction but also in contemporary works like Colson Whitehead's zombie apocalypse novel *Zone One* and Jeff VanderMeer's bio-horror *Southern Reach* trilogy (consisting of novels *Annihilation*, *Authority*, and *Acceptance*). In "The Call of Cthulhu," gestural whiteness is the primary affective state of the increasingly agitated white narrator. In *Zone One* and the novels of *Southern Reach* trilogy, it is characters (or perhaps more accurately, caricatures) who cannot look openly on the nonhuman or face the end of Man that affect gestural whiteness and will not survive—or are already, in some sense, dead.

I argued in Chapter 1 that end of the world dystopia can help us to think and act better in light of possible futures, tempering idealism and progressivism as an ultimate goal and suggesting that hope and optimism might also be placed in narratives that do not require a wholesale and wholly unrealistic alteration in human behavior—that the coming crisis of the

human and hence humanism might be tempered by celebration of transformation and an excitement at what will come after. From Lilith's ooloi children and their human mates to the prints of Control's panther paws as he descends Area X's tower and enters its flame, the immense costs of these transformations yield miraculous new worlds and intelligences. The loss and pain of enstrangement can also be understood as a kind of atonement for the havoc humans have wreaked on this planet, a bodily transformation into something which has the morphological and physiological structures to see and survive and act beyond human ends. What Area X makes of the biologist, that burgeoning, whale-like body, utterly of her environment and with myriad and variegated eyes, each capable of seeing a different spectrum or wavelength, is such a nonhuman—remade in a body both more anatomically and biochemically aware. The same can be said of Lilith Iyapo's "construct" children.

Having summarized the arguments of the previous chapters, I want to use the rest of this conclusion to offer broader conjecture about our futures both near and far. In this project I have been critical of certain rhetorical approaches to scientific knowledge in humanities scholarship. My intent is not necessarily to disparage individual thinkers but to ask of the humanities at large how we want to proceed at a critical time both within and without the academy. Treating scientific knowledge with integrity is, admittedly, especially important to me because of my background in the natural sciences. My more idealistic reason is that if we are to transition to a less anthropocentric viewpoint, unadulterated scientific knowledge is one of the most direct routes. Concepts which resist anthropomorphism, like geological time and strikingly non-heteronormative reproductive biologies, can be tools for unlearning human hegemony. But there are also compelling institutional and cultural reasons to lean into—rather than undermine or complicate—the results of scientific research.

At present, the academy is increasingly focused on the hard sciences, students are increasingly intent on vocational degrees, and many perceive the humanities to be “in crisis.” But outside of the academy, social media and the bifurcation of media outlets has resulted in the problematization of hard fact, and ideas originating in progressive thought and critical theory—ideas like intersectionality and social construction—are increasingly deployed on both sides of political debates.²⁸⁸ In the larger arena, it is not the relevancy of humanities research but the meaning of humanities research that is in question, and we target the hard sciences as an opponent at our peril in this more general struggle to buttress the last shreds of collective truth. In the next ten to twenty years, the humanities must establish and clarify its relationship to fact—and in particular to scientific fact and the scientific method. Failing to do so or doing so poorly may well permanently undermine the relevancy of humanities disciplines—not merely in the academy but in the larger political world—for the simple fact that collective truths produce shared values, and the elaboration of shared values is what many humanities fields, literary studies in particular, were designed to do. Do we still want to inhabit a set of disciplines where fact is tested, metabolized, and interrogated with integrity and for the general good? Work that undermines collective truths is important in a world structured by collective truths. But we may no longer live in such a world. Right now, the general public struggles to find consensus and to know what is true. To retain relevancy, to do the truly humanitarian work of helping humans learn and agree upon how to live, the humanities must now make the case for a valuable feature of that former world, a feature we have, we should admit, been calling into question since the 1990s.

²⁸⁸ Vaccine hesitant protesters chanting “My body, my choice!” and conservative pundits calling climate change a social construction are two examples.

One practice we must interrogate is the use of recent scientific discoveries to set up scientific inquiry or scientific consensus as a straw man. Catherine Malabou, for instance, in arguing that epigenetic change introduces fluidity into what has heretofore been understood as a fixed, deterministic system of genetic inheritance, substitutes a simplistic, popular, social Darwinistic narrative of genetic inheritance for a monolithic “science” and the scientific method. She seems to imply that “science” was wrong, that she has caught “science” out and exposed it quietly making a correction in the permanent record. But that is not how the scientific method—especially as conducted within the larger context of scientific communities—works. If we are to present scientific knowledge responsibly to peers and lay readers we need to understand and correctly represent the scientific method as the constructivist process it truly is. These are the general steps of the scientific method:

1. Observe phenomena (field notes, measurements, and even phenological records might be a part of this step)
2. Establish a hypothesis to explain the observations
3. Make predictions based on the hypothesis
4. Test the predictions with experimentation

This process is iterative and is repeated by individuals and research teams. When test results appear to confirm a hypothesis, the tests and methods are published so that other individuals or teams can attempt to replicate the results. If the predictions stemming from a hypothesis are satisfactorily tested the hypothesis may be elevated to a theory. But even theories can be revised if new test methods or more sophisticated test apparatus undermine the general consensus.

My general points here are two: first, scientific consensus is intentionally impermanent, and is iteratively constructed by the scientific community; second, iteratively constructed does

not necessarily mean “socially constructed” as we commonly use it in humanities scholarship. Barbara Herrnstein Smith characterizes the collective construction of scientific knowledge—which is essentially an extension of the scientific method conducted by a given community of experts and augmented by various communication technologies—as social *constructivism*. Herrnstein Smith distinguishes between scientific positivism and social *constructivism* on the grounds that social *constructivists* understand scientific knowledge as the result of an (albeit expert and well-informed) communal process:

in contrast to logical positivist or logical empiricist views, constructivist accounts of specifically scientific truth and knowledge see them [...] as the more or less stable products of an especially tight mutual shaping of perceptual, conceptual and behavioural (manipulative, discursive, inscriptional and other) practices in conjunction with material/technological problems or projects²⁸⁹

In slightly more colloquial terms, what a scientific positivist might present as “cold hard fact,” a social *constructivist* would describe as fact that a group of experts have, over time and to the best of their investigative and technological abilities, agreed upon. The assumption is that, as this community of experts and their apparatus of observation—a term I draw from Karen Barad’s related essay about the limitations of observation and the unavoidable entanglements between observed, observer, and apparatus—change over time, factual consensus must, of necessity, also shift and change.²⁹⁰

This idea that scientific knowledge is “constructed” by a scientific community sounds a great deal like the concept of social *constructionism* now in common use in the humanities. But Herrnstein Smith also draws a clear distinction between scientific *constructivism* and social *constructionism*. Scientific *constructivism* *does* name a process by which a kind of social group

²⁸⁹ Herrnstein Smith, *Scandalous Knowledge*, Chapter 1

²⁹⁰ Barad, *Meeting the Universe Halfway*, 106, 114, 124, 128

collectively produces and revises knowledge. But *constructivism*, according to Herrnstein Smith, is a process defined largely by theorists interested in cognition at the level of the individual and the community of experts: “either micro-cognition, that is, individual learning, knowledge and perception, and/or macrocognition, that is, intellectual history and the cultural-institutional-technological operations of science.”²⁹¹ Constructivist depictions of these processes are neutral and descriptive. Social *constructionism*, by contrast, is a more transparently critical practice which emphasizes the social as a way of undermining more conservative or essentialist understandings of things like race, gender, and sexuality:

social constructionism [...] operates primarily as an effort to challenge relevant beliefs—including those offered by scientists or in the name of science—by denaturalising them, revealing their dependence on historically or culturally particular discursive practices and/or exposing their implication in the preservation of prevailing social and political arrangements.²⁹²

This project, then, aligns itself with a view of science and scientific knowledge which endorses a temperate model of collective knowledge construction but contests straw man attacks on “science” as deterministic, racist, sexist, and so forth on the grounds that scientific knowledge is under constant revision. Historical scientific knowledges informed by racism or sexism may or may not persist today, but the best way to revise those knowledges, if they are incorrect, is through the scientific method, not through wholesale attacks on “science”—a term encompassing fields so diverse as to be effectively meaningless.

But what am I asking for *in practice*? The last thing I want to do—because it is one of the things that frustrates me—is make grand gestures toward ideas, futures, or fields of inquiry and then fail to make practical suggestions. My recommendations are fourfold: first, if we are to use

²⁹¹ Herrnstein Smith, *Scandalous Knowledge*, Chapter 1

²⁹² Herrnstein Smith, *ibid*, Chapter 1

science, we must make moderate efforts to learn that science; second, as I've discussed above, we must not use specific research findings or popular interpretations of research findings to undermine scientific practice at large; third, we must be careful how science is represented in our language; and fourth, we must acknowledge more than one time scale when we undertake judgement or criticism. To address my first point, I am not proposing that we all go out and get second and third PhDs. But if we are going to use scientific knowledge in our own research, we should know the field and the topic well enough to read the primary sources, the relevant research articles, identify and define pertinent terminology, cite opposed findings, and address counter-arguments as we metabolize the source within our own writing. We should take the time to distinguish between fringe ideas and general consensus, and we should take pride in conveying this information clearly to the reader.

Second, as scholars engaged with scientific knowledge from outside the sciences, we should take care to distinguish between culturally held pseudoscientific beliefs derived from science and scientific consensus itself. Social Darwinism has, for example, some relatively contemporary pop-cultural manifestations couched in genetics. Dawkin's *The Selfish Gene* is one example. But the existence of one or more particularly crass and deterministic recombinations of genetics and evolutionary theory does not mean that the scientific community endorses reductive, deterministic interpretations of evolutionary theory, or that the libertarian and reactionary politics often associated with such interpretations are in any way empirical. It is very useful for humanities scholars to question Dawkins' assertions. It is far less useful for humanities scholars to use Dawkins' assertions to undermine, wholesale, thousands of diverse fields and disciplines, the findings of many of which directly contradict Dawkins' views. Distinguishing

between popular understandings and actual research findings serves all of the communities and disciplines involved.

Evidence of epigenetic change, for example, does contradict the strictest genetic determinist viewpoints, but most scholars of genetics and evolution do not hold those viewpoints. I have explained the reasons for this in the previous chapters. In brief, even the earliest versions of evolutionary theory suggested that the traits expressed by a population were “determined” by outside factors on some time scales. Epigenetics has in fact only subtly expanded the scope of what traits are determined in a Lamarckian direction, to include developmental and multi-generational alterations in response to environmental conditions. The larger point, however, is that when we engage epigenetic research as contradicting genetic determinism, as though genetic determinism is wholly and uncomplicatedly endorsed by geneticists, we misrepresent scientific consensus. Scientific knowledge is and should remain far afield of both conservative and liberal heterodoxy and we do ourselves a disservice when we misrepresent it in order to up the dramatic ante of our own political claims. This is because, as stated above, we are living in an age when the collective trust in fact and the sources of fact is increasingly in question. The loss of local news outlets, the increasing bifurcation of news sources along political lines, and the ubiquity and influence of social media all serve to undermine social cohesion and make honest, open debate increasingly difficult. Social constructionism as a critique of central cultural constructs has served an important purpose, but there is no ground gained if our work permanently frays the social fabric.

There are certainly points of failure in the process of scientific research and publication, many of which have been introduced relatively recently. Research funding, especially in the field of medicine, is now highly oriented towards pharmaceutical discovery and profit. And a handful

of very powerful publishers control the academic publishing industry in a way that is not conducive to rigorous debate or dissent. Nevertheless, the scientific method has not changed, and it is still largely possible to tell whether it has been properly followed, to analyze reported data, and to attempt to reproduce findings. And even at our most poststructuralist, most of us still get vaccinated, take prescribed antibiotics, wash our hands, brush our teeth, and refrigerate our food. No matter how willing we are to critique “science” we all convey, with our behavior if nothing else, that we believe wholeheartedly in the scientific consensus at nearly all of the myriad points where it shapes our daily lives. What we communicate through our most innocuous habits and choices every day is that while many large-scale social constructions have been rightly brought into question by critical theory over the last forty years, that does not mean that all socially accepted ideas and concepts are false. And this is even more true for ideas and concepts socially constructed by a community of experts which, by design, repeatedly tests and revises its findings. I am not asking for scholars to abandon their topics, but merely to engage scientific findings with increased care and neutrality of tone.

My third point may seem like nit-picking, but in my opinion it is particularly important because in the humanities and especially in literary studies we act as stewards of language. When we unknowingly adopt figures and phrases which inaccurately represent scientific knowledge or further popular misunderstandings of scientific knowledge, we undermine the importance of accuracy in scientific discourse. We speak of institutions as having evolved, when evolution happens to populations over many generations and not to individuals, much less to corporations and nonprofits. We allude to behavioral characteristics as “in a person’s DNA,” reinforcing a deterministic sense of genetic inheritance and implying that traits understood to be greatly influenced by life experience are in fact genetically fixed. To use this language despite

vehemently opposing these views in our own scholarship is to fail to fully metabolize these knowledges in our own lives and praxis. To do so while making recourse to scientific knowledge to increase the legitimacy or novelty of our own work is to cultivate an ambiguous relationship to that knowledge, leveraging the benefits of scientific fact when it suits us only to play fast and loose with it in other contexts. This is a subtle point and I mean it gently since, like Donald Rumsfeld, we will forever find it hard to know what we do not know. I merely ask that we entertain a sense of curiosity and integrity about how and for what reasons generalizations, figures, and metaphors leveraging scientific knowledge are at work in our rhetoric. We would hold scholars in other fields responsible for misrepresenting our work or our archives. The same should hold true for us.

Finally, anywhere that we make claims about what is right in the present—especially with regard to environmental degradation and climate change—we should also acknowledge that these claims are made from an anthropocentric viewpoint and attempt to identify the points where short-term human interests conflict with nonhuman interests (and even with long-term human interests) like species diversity, habitat preservation, and the long-term survivability of the planet. We should attempt, that is, to think in two time scales at once.

I won't pretend, as many idealists do, that there are not clear conflicts between short-term and long-term humanitarian goals. In the short term, for example, it is considered problematic for the global North to dictate carbon dioxide emissions goals to less developed nations. But if the long-term humanitarian goal is the continued survivability of the planet for humans, especially near the Equator, the plain truth is that emissions everywhere must be immediately and severely curtailed. The same contradiction applies to population growth. The planet would clearly benefit from an overall reduction in human population, which would reduce all kinds of deleterious

agricultural and industrial effects. But short-term humanitarian goals are far more focused on granting agency and resources to less economically privileged individuals, particularly in the global South, which—until these populations reach a standard of living commensurate with the global North—will increase the strain on regional resources by increasing the population. It is plain fact that there are too many humans, and technological innovation can accommodate overpopulation to only a limited extent. Eventually, burgeoning human populations encroach upon new habitats, reducing species diversity and unleashing new zoonotic pathogens as they do so. Ultimately, if we want to both live in a globally connected world and have relatively stable lives we need to reduce the human population.

Prioritizing long-term humanitarian goals sometimes seems cold-hearted, but privileging short-term humanitarian goals and ignoring long-term effects usually increases overall human suffering, not to mention nonhuman suffering. I don't claim to know the solution to this conundrum. Such choices will always be difficult. But we can start making them openly: "Here is the short-term humanitarian goal. If we do this, this is what will happen over the long term. These are the long-term goals which may not be achieved if we focus on this short-term goal." That is what we should strive for in such conversations, going forward.

This conclusion has, admittedly, made several very specific prescriptions concerning the diction and rhetoric of humanities scholarship. I am making specific prescriptions intentionally because, as mentioned previously, one of the things that frustrates me about our discipline is conclusions that make grand gestures towards concepts, practices, or purported futures but avoid the risks inherent in concrete claims and clear recommendations. It is very easy to theorize, but very hard to bring theory home to our own temporal and material conditions in a far-reaching yet ethical manner. Theory almost never lands cleanly and uncomplicatedly in the diverse set of

social contexts which, at present, compose our world. To do so requires hard thinking about contradictions and sacrifices. This is another thing, though, that we should take on, if we are willing. We are, in a sense, responsible for how our theoretical work is used in the world. When we fail to fully interpret it ourselves, we give control of its application over to others whom we do not know and might not trust. The application of theory is just as precipitous a point in the process of knowledge construction as the interpretation of fact, and in my opinion we should not abjure our responsibility in this regard.

Having made these several and fairly strident recommendations, I must apologize for the difficult tone and topics I have raised in this conclusion and elsewhere in the project. I insist on the eventuality of the end of Man because I consider it far healthier to face statistically likely futures head-on than to skirt around those futures and let unvoiced anxieties play out in less intentional and potentially more destructive ways. I have also attempted to lighten the psychic burden by explaining how quickly Earth will recover (in geological time) from our presence, and by stewarding an archive of myriad and beautiful futures. In my opinion, it is not enough to reduce global emissions, cross our fingers, and hope for the best. Humans might, somewhere and somehow, materially survive the coming scarcity and resource wars. But without a sense of understanding and humility, without narratives to ease this critical transition in Earth's history, we will not do so gently or courageously.

I have been particularly hard on humanities scholarship in this project; one tends to have (unrealistically?) high expectations for the things we love. But I believe this conclusion, more than any other section, conveys the importance of cultural production and scholarship to both the short-term and long-term future of intelligent life on this planet. Immanuel Wallerstein already believed, in the mid-1990s, that the social fabric had begun to fray as our capitalist world system,

prefaced on unlimited growth, began to reach the fixed material limits of the planet. The next century, no matter what results, will not be easy. We will need works of art to both remind us of what we were and give us hope about what we are becoming. And we will need critics to help us understand our complex world, to understand what to keep and value, and what to tear down and build anew. This includes our relationship to scientific research, our relationship to social constructions like race and gender, and our relationship to art itself. It means making strategic decisions about how and where to employ deconstruction, and where to point out and advocate for productive collective truths. The arts and humanities are also well-positioned to model the kinds of courage and acceptance which, in the near future, will be gravely needed. But if we are to do so, we need to become much more appreciative of the cultures we presently inhabit. At some point, what we now think of as critically important political contingencies will have to give way to actual material contingencies. Helping people—all people—in the cultures we steward understand and decide how to live is still our most important job. When we abjure that responsibility we no longer deserve the cultures we have inherited.

I have tried to model this kind of scholarship within this project, by handling my artifacts gently, by reading them carefully, by stating clearly the scientific truths and untruths they convey. In some cases—particularly in the case of *Fast Color*, *Alien Resurrection*, and the meaning of epigenetic research—what I discovered was that the artifact or evidence did not want to tell the story I expected it to tell. I was required to go back into the theory and revisit the artifacts. I was required to complicate popular theories because the works in my artifact did not conform to the narratives they offered. These rewrites presented no small source of stress and anxiety to me over the course of the project. I did not do so for my own comfort. I did so because failing to find a coherent explanation for the details I had discerned would have meant failing the

artifacts themselves. It is impossible to do right by all things all the time. But in rare and fortunate moments we manage to do right by the things we love. That is one very important thing critics can offer. Some of our most pressing concerns around human rights and human history will seem much less important as we near the end of the Anthropocene. My archive intentionally reflects that, and it would be irresponsible of me not to sincerely explore that reapportioning of values.

If we are to make it through the next half-century in a conscionable manner, we must stop clinging to nineteenth- and twentieth-century ideals of the human and turn toward the nonhuman posthuman as the new locus of potential—the beauty of which our paltry imaginaries can only guess. So many impossible possible beings might take our place on this world. So many cultures and knowledges and practices might come to exist, so many ways of living. This planet is so much more than the despoiled place we have inherited. It is the long-lived, durable, sentient host of legions of lifeforms—those from the past, those here and still uncatalogued, and those yet to come. We have, in many ways, failed our precious island in the deadly expanse of space. But Earth has not and will not fail the promise of life in all its gentle and curious and savage iterations. Sentient and communicative trees, flighted beings, those who breathe underwater or dwell deep in the earth, hybrids, hybrids, and more hybrids with wholly new kinds and histories of love and loss. These and more are the possibilities my archive finds in the end of Man. And if our time to say what will happen and what it means has come to a close, so much the better. Let us mourn our failures, gentle our foreheads, and trust in the glacial but ceaseless biological processes we so fervently tout. Countless new worlds and beings will lay their ruins over ours. Or they will lay no ruins whatsoever. Regardless, the end of Man will not in any sense be the end of intelligence or beauty. We have only missed our chance if we are so dearly invested in the

human that our sense of partaking ends there. The promise of these futures is still on offer, for those who can open their hearts.

This returns me to a topic I took up in my introduction: how can I possibly ask human cultures—cultures so strongly predisposed to anthropomorphism that we find it difficult to speak about other species without metaphor and allusion to human intellect, emotion, and physiology—to find and celebrate futures populated by nonhumans? I don't have a clear answer. But humans have two capacities that can bring us very close. One is identified in Wisława Szymborska's "Conversation with a Stone," where the human speaker "knock[s] at the door of the rock," asks to "enter [its] interior [...] have a look around / take you in like breath." The stone's repeated reply is that the speaker cannot come in, that it is "shut tight" and moreover, that humans lack the "sense of partaking," with which we might truly comprehend nonhuman entities:

"You will not be coming in," says the rock.
 "You lack a sense of partaking.
 None of your senses can make up for the sense of partaking.
 Even sight, sharpened to omnividence,
 will get you nowhere without a sense of partaking.
 You will not be coming in. You have but a scent of this sense,
 merely its seed, imagination."²⁹³

When the speaker insists, still, to be let in, the rock sends her to "the leaf, you'll hear the same thing. / Or to the water droplet; it'll say the same. / Finally, ask the hair from your own head." Not only stones but leaves, water, the proteins of our own hair, all manner of nonhumans are forever unavailable to us. And then, as if in further critique of the human tendency to anthropomorphize, the stone declares that it is "bursting with laughter, [...] giant laughter / though I don't know how to laugh." Its screed is addressed to the world of Man, to the humans of Western modernity. We lack the "sense of partaking" and, what's worse, we make crass attempts

²⁹³ Szymborska, *Miracle Fair*, 64

to bring nonhumans closer by attaching human characteristics to them. It *would* be laughable, the stone's laughing weren't—at it so astutely points out—another instance of anthropomorphism.

If the stone is correct, then I have asked the impossible. And yet, the writers and directors in my archive all imagine marvelous nonhuman transformations and futures. The stone does concede that we possess “a scent of this sense [of partaking] / [...] its seed, imagination.” A latent or inchoate ability, surely richer in some than others but something which, over time, human populations might embrace and improve. And there is one more thing that we have at our disposal, we humans of Western modernity, that can bring us a great deal closer to nonhuman phenomenology: scientific knowledge. Scientific knowledge tells us the chemical composition of the stone; that the octopus tastes with its skin; which cellular receptors are targeted by a virus.

Bruno Latour argues, in *Politics of Nature*, that the commonly understood divide between “Culture” and “Nature” has never really existed. By “Nature,” Latour refers to the nonhuman world outside of human culture, a concept related to but not the same as Lacan's psychic domain of the Real. Rather than being separate from Nature, politics is defined by its relationship to the natural world.²⁹⁴ We cannot choose whether or not to engage politically with the natural world because all politics are by definition ecological. But the *intentional* practice of politics in full knowledge of its connection to the natural world Latour provides with its own label: “political ecology.” The main obstacle to political ecology, according to Latour, is the Nature/Culture divide implicit in the humanist world view. As a result, part of the work of political ecology is “blurring the distinction between nature and society *durably*, so that we shall never go back to two distinct sets, with nature on one side and the representatives that humans make of it on the

²⁹⁴ Latour, *Politics of Nature*, p. 1

other.”²⁹⁵ A socially constructed, separate “Nature” interferes with politics because it does not allow for individual nonhumans with unique needs and effects. Political ecology instead utilizes the sciences to bring nonhuman species, entities, and sometimes even individual nonhumans into human discourse.

Latour understood that scientific knowledge can be an access point to nonhuman phenomenology. It is the sound and stable leaping-off point for the kind of productive imagination we need. Knowledge alone is not enough. We must know and then imagine. Despite our observational limits and biases, we must deploy all the scientific knowledge at our disposal *in concert* with imagination. That is what will bring us closest. Not true comprehension, true partaking. Surely not. But this is what the narratives in my archive do: they follow the factual marvels of this world into the unknown, opening the mind to possible futures and softening the losses to come. “The world we are a part of now,” writes Grace, in the end of *Acceptance*, “is difficult to accept, unimaginably difficult. I don’t know if I can accept everything even now.”²⁹⁶ Ultimately, Grace does find acceptance. Injured, infected, dying of cancer, and losing her grasp on the two worlds she fought so hard to reconcile, her failed attempts at manipulating Area X turn out to have been far more powerful than she would ever know. Grace put those changes in motion in part by giving herself over. To be transformed, and to accept that transformation. That is the work to come.

²⁹⁵ Latour, *ibid*, p.36

²⁹⁶ VanderMeer, *Acceptance*, 338

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